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Vol. CLXXIII No. 2258 WITH WHICH IS INCORPORATED THE GRAPHIC MAY 1 1943

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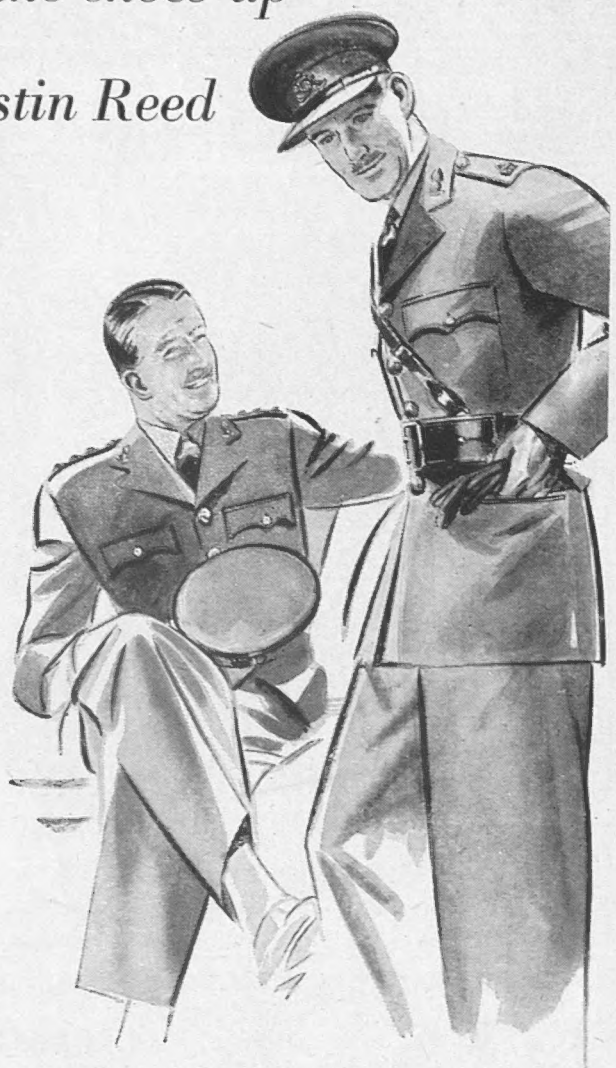

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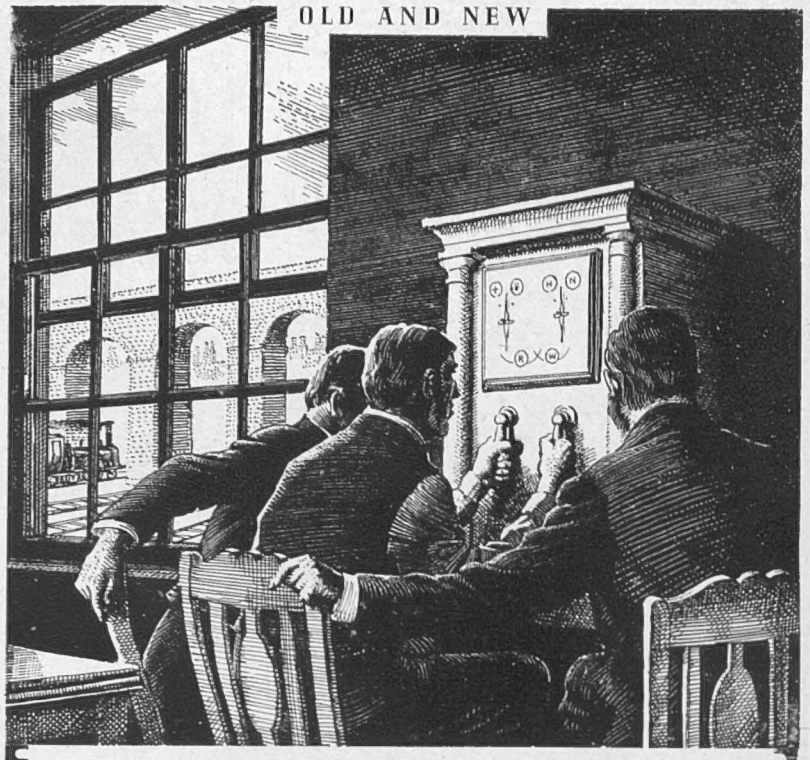

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Volume CLXXIII No. 2258 The SPHERE, London, May 1, 1943

THE SPHERE
With which is incorporated "THE GRAPHIC"
The Empire's Illustrated Weekly

H.M.S. "HOWE," ONE OF BRITAIN'S LATEST AND BIGGEST BATTLESHIPS. The newest picture (taken from an aeroplane) to be released of this powerful warship of the King George V. class, showing in particular her terrific forward armament of six 14-in. guns

Originally there were to have been five vessels of the King George V. class; but one—the *Prince of Wales*—was, unfortunately, sunk off Malaya. All the remaining four are, however, in active commission—and have been so for some time. This newest view of the *Howe* shows very clearly the two forward turrets on the great battleship; the lower one has four of the new 14-in. guns, the upper turret has two. A third four-gun turret is mounted aft. The King George class are all vessels of 35,000 tons, and they carry a complement of 1,500; their length is 739 ft., with a beam of 103 ft. Designed speed is over 30 knots, from engines which develop 152,000 h.p. The new 14-in. guns, of a new model, have an effective range greater than the 15-in. guns mounted in earlier ships: the inclusive cost of the armament (including the fire control installation costing £213,000) has been officially stated as £2,900,000. Unofficial reports have given the weight of armour alone as over 14,000 tons, and a waterline thickness of 16 in. Four aircraft are carried by the vessels of this class, and are launched by catapult

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A WAR NEWSLETTER —No. 191

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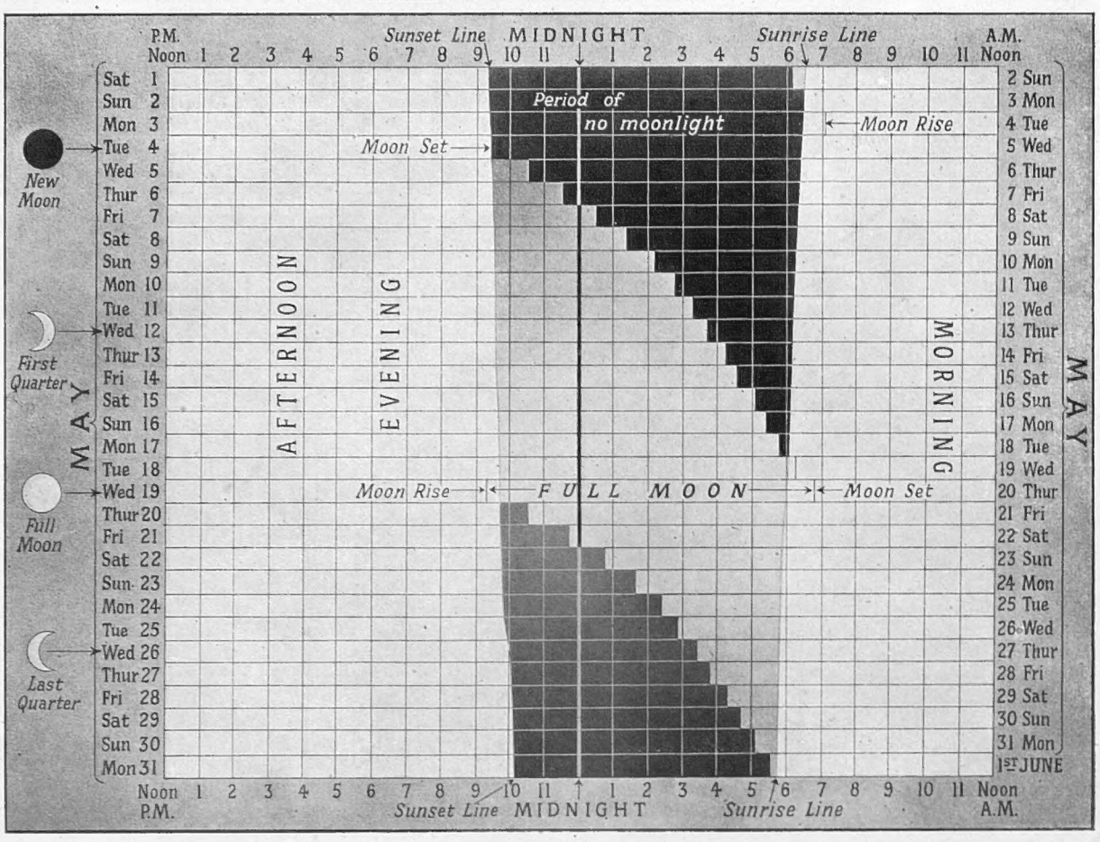
The Guessing Game in Europe.—Where will the Allies strike next? It is the current guessing game. We are all at it, except a very few Allied leaders who, perhaps, know the answers. But while the Allied peoples merely speculate, the leaders and peoples of the Axis lands must not only speculate, but act and move. And clearly it is causing a good deal of mass movement and inconvenience, and not a little confusion and discomfort. The underbelly Islands are now on a front-line basis. In the key cities on the mainland of Italy neutrals are being sent to Switzerland. From Dieppe, Cherbourg, St. Malo and Le Havre and the submarine bases, all "unnecessary persons" have gone or are to go. Anti-invasion manœuvres are the thing in Bulgaria and other Balkan States. And from Norway to the Adriatic the fortress walls are being feverishly raised by conscript civilian labour. Nor are these defence measures the only, or the chief, strain on Axis manpower and railways and communications. There are vast movements of population from the stricken cities of Germany and Italy—a gigantic flight from bombing. Train and tram services are overtaxed and disorganised, and the railways, which in Germany and Italy have for years been taxed to capacity for the transport of munitions and constantly harried by the R.A.F., are now overburdened with a two-way refugee traffic, from Essen and Munich, Naples and Genoa. If that "Second Front" is still mere guesswork, it is reasonable to argue that 50 per cent. of its inconvenience is already being suffered by the peoples of the Axis. To that extent the essential strategy which the great winter offensive by the Russians called so loudly for, has been maintained. In vital particulars, the Allies have never ceased to keep the Axis on the run and speculating. The strain on Axis resources has not for an hour been suffered to relax. The refugees are congesting the lines of communication, as they did in France in 1940, and rumour and speculation and flight, the prime rotters of morale, are already at work in Axis territory. It is a slow business, this war of attrition, from which neither side could now, if it would, extricate itself until the bitter end is reached. And even in an hour of success and movement, we often feel an impatience which does less than justice to the most active participants in this People's War. But just as we must, and do, take on trust and on the long view the effect of our bombing policy on Axis War Industry, so (and perhaps with even clearer evidence) we may justify long-view faith in the effects on Axis morale of this now fashionable European guessing game.

Premium on Air Passage.—It is hard to resist Air Vice-Marshal Coningham's considered view that after the slaughter in the Narrows the premium on the air passage over the Sicilian channel has risen sharply. "Coarse game" the Ju.52 may be, but wholesome food none the less in austerity days. The news of that swift and fearful liquidation off Tunisia filled me with Vitamins A, B, C and D. It seems impossible to believe that the enemy will try it on again in daylight and in bulk. These Ju.52 planes may slip across in threes and fives by night, but one imagines that, when the news of the disaster is known to the surviving Ju.52 pilots in Sicily and Sardinia, they might dare to question an order to fly to almost certain death in mass formation and in daylight. The evidence all goes to show that the slaughter was almost shamefully easy; "barn-door fowls with a scatter-gun." And if the premium on the air passage over the Sicilian Narrows has soared as a result, how about the premium over the English Channel? Complacency is the last frailty we seek over here in our own fortress. But, if the air pundits are rightly interpreted, Britain is still an unsinkable aircraft-carrier, with a load of fighters not inferior to the North African circus in numbers and efficiency. And over here our detection system is probably far more efficient. It seems reasonable to infer that an invasion of Britain from the Continent, so long as command of the sea cannot be guaranteed, has for the moment, as a result of this great victory, gone out in Nazi opinion to 100 to 1 (no takers). If that be so, if that opinion has good basis, it may have big effects on our major strategy, and repercussions of a wide range.



"THE SPHERE" MOONLIGHT CHART FOR THE MONTH OF MAY

The month begins with a period of no moonlight. After the 4th, the night of the new moon, the evenings get lighter and the first-quarter stage is reached on the night of the 12th. Exactly a week later the moon is at its full with moonlight throughout the whole night. The last-quarter phase is reached on the night of the 26th, the end of the month again witnessing a total black-out

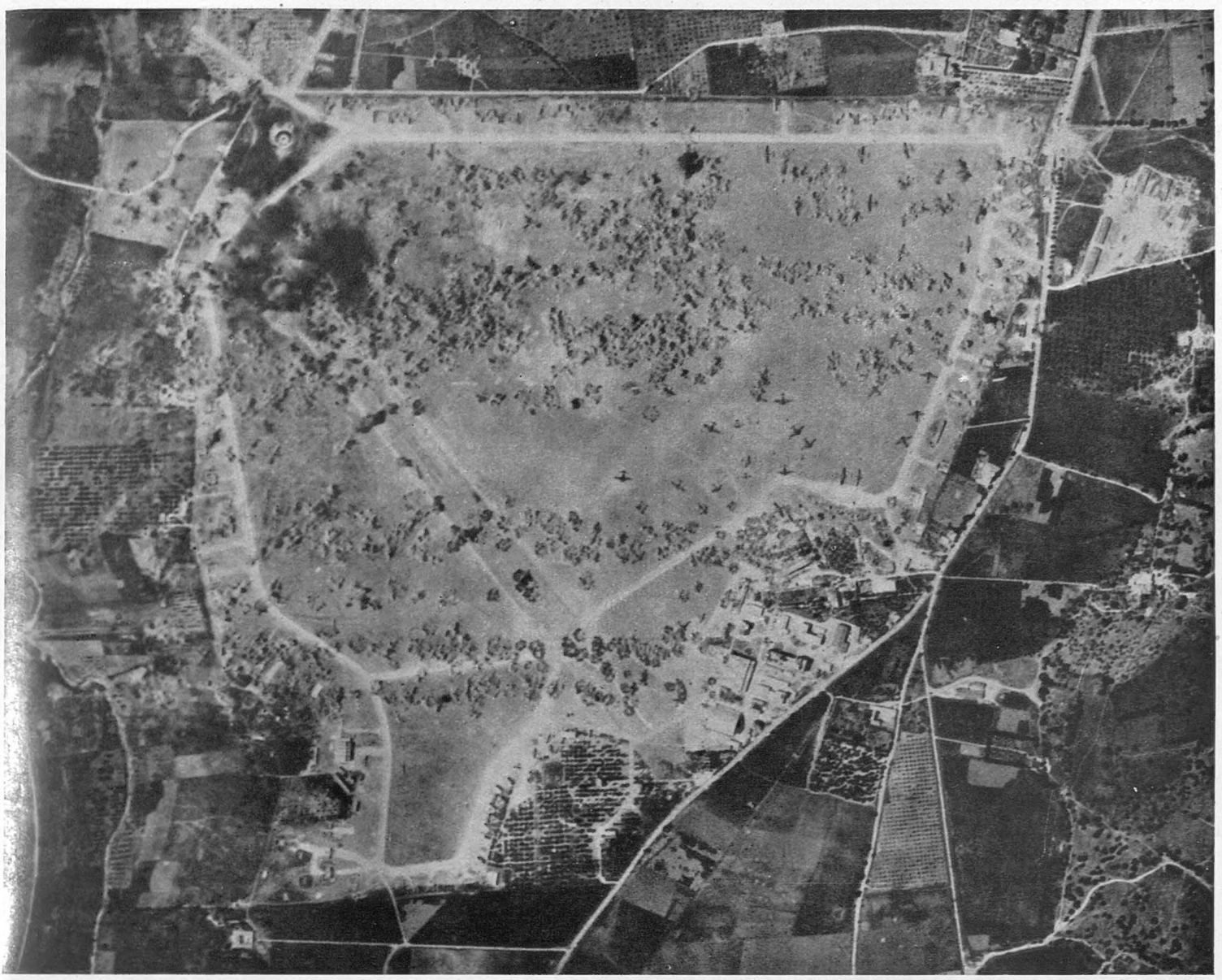
A limited number of these charts will be supplied free of charge on application to the Publisher, "The Sphere," Commonwealth House, 1, New Oxford Street, W.C.1, but 2½d. in stamps must be enclosed with the application

Party Truce and War Elections.—I admit to have felt much bitterness and suffered a deal of disillusionment concerning some of the many by-elections of wartime. I cannot be surprised if here and there a truce-breaker has carried with him a constituency which revolts from its own impotency. Many of the difficulties are clear to me. The party truce must be maintained now until victory is attained, and, perhaps, long afterwards; indeed, perhaps, until the result of a re-orientation of political ideas in Britain has revealed the meaninglessness of existing labels. Whether our leaders comprehended what that truce, hastily entered upon, might come to mean, and result in, by 1943, is another matter. The House of Commons has been very largely recruited and new-blooded since the last General Election staged in the dark ages behind "living memory." It has been recruited on a dead register, on partial representation, on the assumption that a constituency which in those "dark ages" returned a Conservative, a Liberal or a Socialist or what not, is likely to do so ever afterwards, and the candidate chosen under the appropriate label is entitled to every blessing and bias which a Coalition Government can give him. The Government leader of his political colour will write him an open personal letter expressing affection, admiration for his qualities, and sometimes suggesting an old acquaintance for which there is little basis in fact, and will press him on the constituency with the hint of a threat that those who don't respond are qualifying for Quislingism. Worse still, the candidate in many cases was chosen to nurse the constituency under methods of selection based on principles (or lack of them) which we now deplore (e.g., a carpet-bagger with money to burn or a title to give cachet), and by a local committee whose names and natures and methods and ideals might well be anathema to majority opinion in a "live" register of the constituency. Not all these evils (even to-day) are necessary evils. Some might be remedial even in wartime. The election is rushed through, the voter may see his new Member only for a minute in a cloud of dust. He must plump for him on the polite, but forceful blackmail of that personal letter, or risk the charge of unpatriotism, and his vote adds another stone to the obstacle in the way of securing, under a revised register in happier times, the ideal local member of his dreams who may be now fighting his country's battles overseas. I can think of no system of conducting by-elections which could do more to throw contempt on parliamentary government or to disillusion the electorate. I realise, none the less, that the evil was unpredictable and at the moment is irremediable.

"Marches on its Stomach."—I still remember with gratitude and greed some of the rations provided for the troops in my own "bow-and-arrow" war of 1914-18. Of bully-beef, plum and apple and "lemon-cling" peaches I may have tired, but those tins of Dorset butter and that pork-and-beans stew are poignantly fresh in memory. The caterers for the Army in the present war, if the evidence of my correspondents in Tunisia is a guide, seem to be inspired with the imagination, the fire, the genius and the poetry of an Uze. The "A-type" ration pack seems to be the epitome of eupeptic poetry and vitaminous vitality. Our soldiers write lyrically of its delights—its savoury sausages, its steak-and-kidney pudding—with an accent on the pudding—its fruits. The genius of those Army caterers can apparently make rice pudding immortal and, more marvellous still, can turn sago into a Lucullus feast even for those who hitherto held sago to be unfit for human food. This is high praise, and as regards sago, in my poor view, perhaps the highest tribute ever served out to the kitchen front. Perhaps these wizards have learned how to make even red stewed pears and vermicelli—the bane of my childhood—appetising. I should like to sample an "A" pack. But such things are certainly not for Home Guards.

Gardens Again. — Another war season has opened for the Gardens of England serving the District Nursing Cause. Despite all handicaps and restraints, the revenue so obtained has not fallen away as expected, and now more than ever this grand scheme proves its worth, in good fellowship and recreation for war-worn minds, and in its beneficial results for the Cause. Easter late and summer early—one way and another all our expectations this year have been far out. We plan to open our gardens at the psychological hour, when all our batteries are putting out their heaviest barrage of blossom. And nearly all of us have missed the right bus—missed it by three weeks! Those who planned for cherry time, or azalea time, or rhodo. time—all have gone astray by weeks. *Everything* was coming out in a tremendous rash, or *mélange*, of colour, before Easter and round Easter. There is only one thing for it—strike while the iron is red-hot. This opening of gardens in the fourth year of war (or fifth season) has become an affair so purely local (walking radius) that it matters not much what advertised date is printed on the County List. Use your post cards, lure your near neighbours with a promise of an austerity cup of tea (do it *now*), and you will find they will respond (and leave their shillings in your box), and thank you also not only for a pretty show (even of early potatoes), but also for a thrilling social occasion, a party, a *beano*, an event, a diary item.

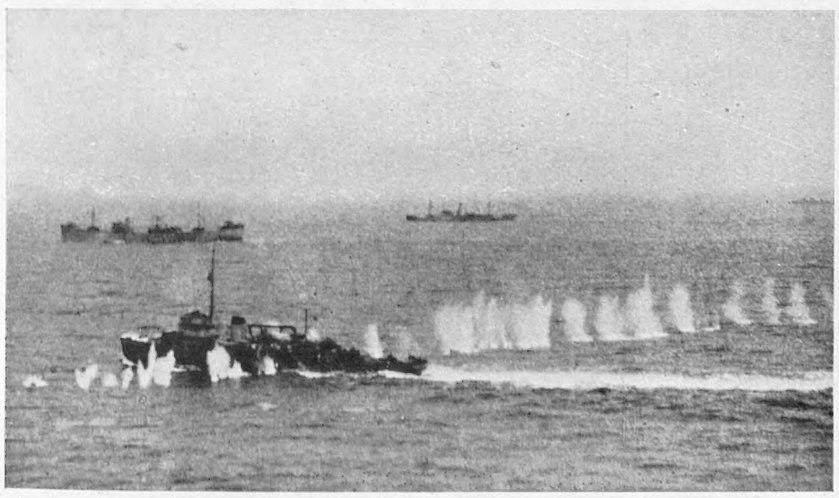
THE OLD STAGER



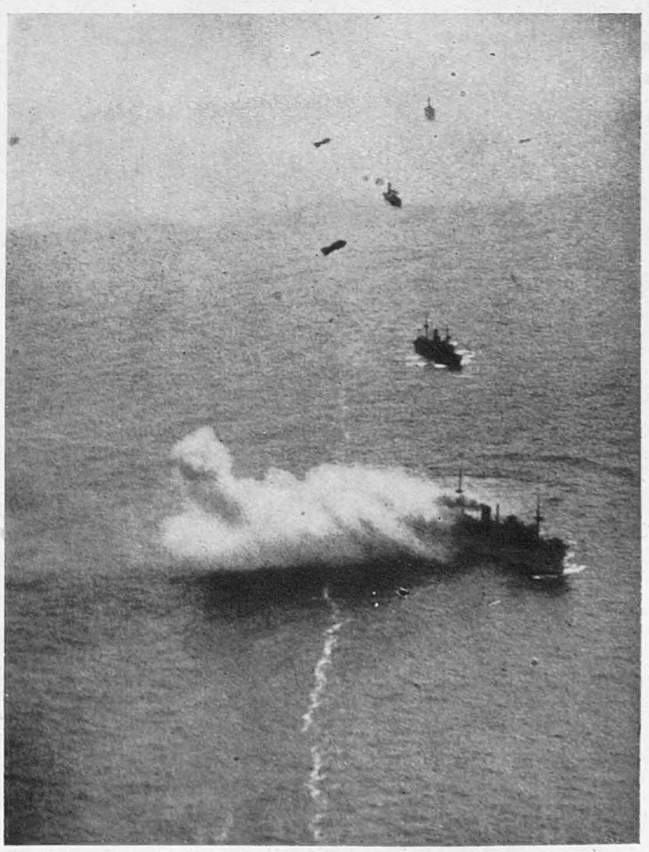
AFTER FLYING FORTRESSES OF THE U.S. AIR FORCES FROM NORTH AFRICA HAD POUNDED THE AXIS AIRFIELD AT MILO, IN SICILY, ON APRIL 5. During this highly successful raid there were 70 to 80 enemy planes (the majority of them Ju.52 troop-carriers) on the aerodrome: thirty of them received direct hits and many others were damaged. A large hangar and other buildings on the field were also hit

THE AIR ONSLAUGHT ON SICILY

The above picture, in its own way, is as memorable as some of the striking photographs which were taken above Maleme aerodrome, in Crete, over two years ago. It shows the battered and bombed landing-ground at Milo, on the island of Sicily: from here the Axis have been maintaining a shuttle service to North Africa, employing large numbers of Ju.52 troop-carrying aircraft, amongst others. After the Flying Fortresses had made their attack, nearly half the planes on the ground were no longer fit for service. In one corner of the field alone (towards the centre and top right-hand of the above picture), there are no fewer than twenty aircraft surrounded by bomb-craters. The whole aerodrome was left in a condition which rendered flying impossible. On April 5, the day of this attack, the Axis lost in all 153 planes in the air or on the ground



COASTAL COMMAND BEAUFIGHTERS ATTACK AN ENEMY CONVOY. The two pictures given here were taken on April 18, when Beaufighters (escorted by Spitfires and Mustangs of Fighter Command) attacked a large enemy convoy which had been sighted off the Dutch coast. Above, an enemy minesweeper, which formed part of the formation, is being "beaten up" by cannon fire from the Beaufighters



A LARGE, HEAVILY ARMED CARGO-VESSEL in the convoy is gradually being enveloped in a mass of flames. Other enemy vessels and several barrage balloons may also be seen

NEW PICTURES from the TUNISIAN BATTLEFRONTS

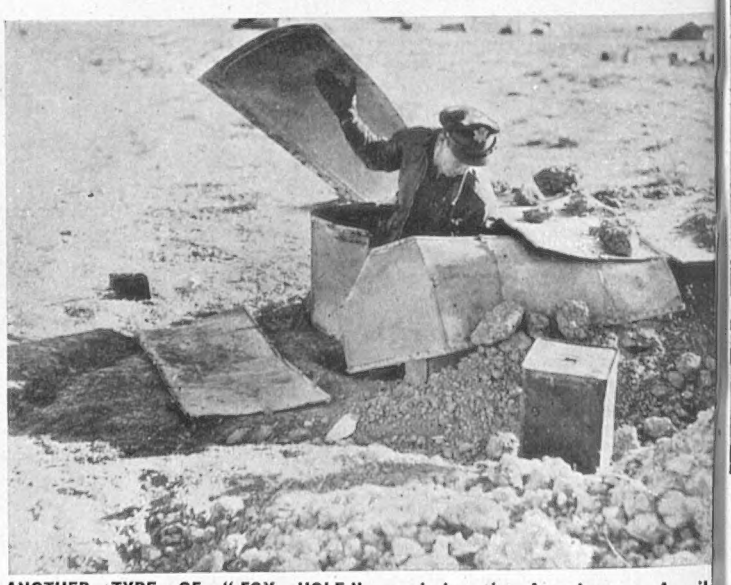
GENERAL EISENHOWER, C.-IN-C. OF THE ALLIED FORCES, pays a surprise visit to a forward area Headquarters of the Eighth Army. On his left is Major E. R. Lee, his A.D.C.; in the centre is a British Brigadier of the General Staff; on the right is Air Vice-Marshal Broadhurst (Commanding the Desert Air Force with the Eighth Army)

THE TURKISH MILITARY MISSION'S VISIT TO NORTH AFRICA: The members of which recently made a flying visit, and had talks with General Eisenhower and General Alexander at their respective Headquarters. Above, General Alexander is saying good-bye to General Salih Omurtag, Leader of the Mission

BATHS BETWEEN BATTLES FOR THE EIGHTH ARMY. A change from the desert to which they had been so long accustomed—shower baths erected among the palm groves at Makarouf, so that the fighting men could refresh during pauses in the battle

THE EL HAMMA ROAD MAKES AN IMPROMPTU AIRFIELD for a "flying jeep." A Stinson aircraft takes off after having landed a liaison officer. Traffic was held up while the aircraft, piloted by a New Zealander, landed and took off from the narrow stretch of roadway

THE NEW TYPE INFANTRY TRENCH used by the warriors in North Africa. New Zealand troops are here seen sheltering in their shallow slit trenches whilst awaiting the order to advance during the fighting in the Gabes Gap



ANOTHER TYPE OF "FOX HOLE"—used by the Americans. A pil is here emerging from his roughly-fashioned shelter at an advanc airfield. Its roof has been fashioned out of tins

A NEW GERMAN MINE DISCOVERED BY A BRITISH GUNNER IN NORTH AFRICA. Seeing a webbing strap protruding through the earth beneath an olive tree, a gunner decided to investigate. On scraping some of the earth away he found that the strap was attached to a large round metal object. He informed a Lance-Sergeant of a Royal Engineers Field Company who unearthed the object, which was attached to three German 3-kg. box mines, none of which were fitted with detonators. The object, which was conical in shape with a hollow base, was thought by the R.E.s to be a bulk charge. Being new to them, and believing it to be the first of its kind to fall into our hands, it was forwarded to Divisional H.Q. for further examination. This picture shows the mine exactly as it was discovered

WATER BEING UNLOADED FOR THE FIGHTING MEN. Two-gallon cans of water are here seen coming ashore on a Tunisian beach from flat-bottomed landing boats, normally used for carrying tanks, and being packed on to a truck in the foreground. Throughout the long advance through Tripolitania water has been one of the most urgent and greatest problems for an Army fighting in country such as that which the Eighth Army has traversed—but there is a plentiful supply of it now!

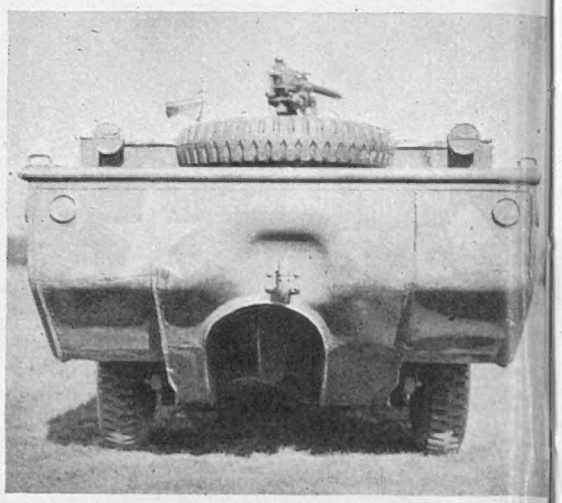
A FIELD POST OFFICE IN THE DESERT, with despatch riders coming in to collect mail for their units. Wherever South African troops are serving, their mail is delivered promptly, sometimes in remarkably few days from the time it leaves the Union. A large and smooth-running organisation handles the thousands of letters and parcels which arrive each week, sorting them and distributing them with the minimum of delay. From the Base Post Offices, the bags go out to Field Post Offices, from where they are distributed to the units in the field

The SWIMMING JEEP
and the TANK-BUSTING HURRICANE

Together with Some Other New Ideas in Military and Flying Equipment

The latest addition to the equipment of the American mechanised forces in Britain is the amphibious version of the now world-famous jeep scout-car. Built on the original jeep chassis, the new version has a watertight, boat-shaped body and a propeller under the stern to which the power can be switched when the craft takes to the water. It is capable of much of the performance of the original jeep—but it does not now need a bridge to cross a river! The amphibian has a fair speed in the water, carries a power-operated niggerhead capstan on the bows, and is armed with a 30-calibre machine-gun (operated by a man seated aft of the driver). The amphibious jeep is being built in considerable numbers at the Ford works in Detroit: it is intended to carry five men in all. The power plant which drives the craft on either land or water also operates the capstan and the bilge pumps. The four pictures reproduced here were all taken during the course of a demonstration by the U.S. Army in this country

THE NEW JEEP BUILT FOR OPERATIONS ON LAND AND ON WATER. This U.S. craft will carry five men practically anywhere, and now carries a 30-calibre machine-gun as armament

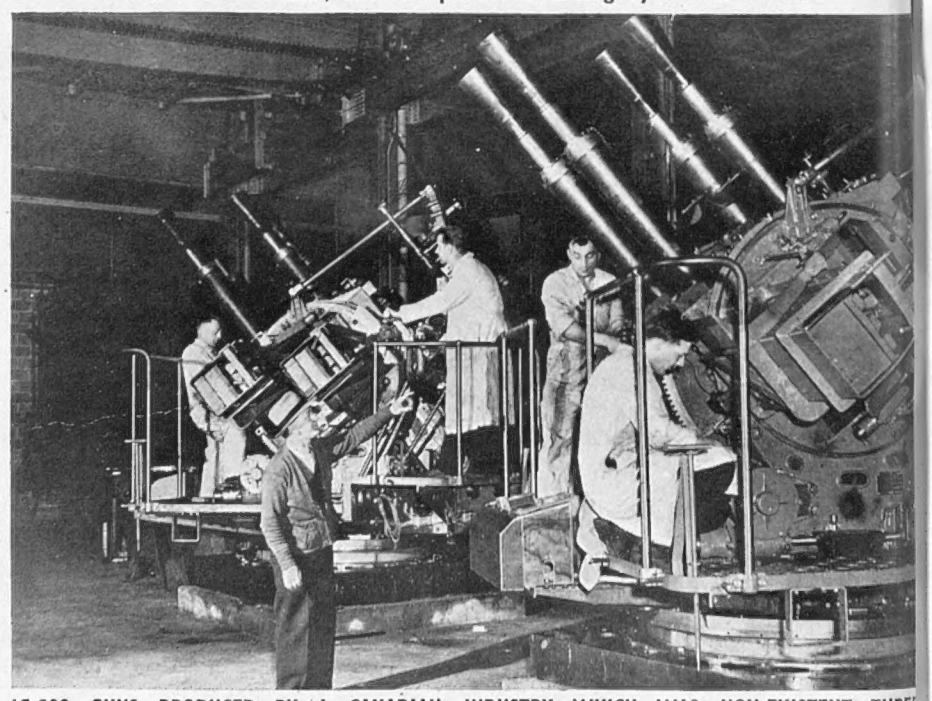


A LOW REAR VIEW OF THE JEEP, showing the propeller under the stern to which the power can be switched when the car takes to the water

HOW THE AMPHIBIAN FORDS A RIVER UNDER ITS OWN POWER. The one power-unit drives either the wheels, when on land—or the stern propeller, when in the water

A HEAD-ON VIEW OF THE CAR IN THE WATER. The machine-gunner sits at the rear of the two front men, and can protect a landing by the car's crew

U.S. ARMY HORSES AND MULES EQUIPPED WITH NEW-TYPE GAS MASKS. This mule is wearing the new type of mask which has been developed and perfected by the U.S. Army Chemical Warfare Service with the object of supplying enough unpolluted air for the animals to walk, trot or gallop when in action. Pack-horses such as the above wear the M4 type, and cavalry horses the M5. The former consists of a close-fitting muzzle piece with flexible hose running to two canisters on either shoulder to maintain an even balance. The M5 has a single canister on the right side to balance the rifle carried on the left side of cavalry mounts. Each type weighs only 15 lb.



15,000 GUNS PRODUCED BY A CANADIAN INDUSTRY WHICH WAS NON-EXISTENT THREE YEARS AGO. The roar of Canada's guns is heard to-day all round the world, on land, sea and in the air. Foreign to Canadian industry before the war, gun manufacture is now being carried on in scores of plants from coast to coast. Fifteen thousand units of various calibres had been produced up to the beginning of April. This, starting from scratch, is an achievement of which Canada may well be proud! In the picture above is seen the final stage of production of huge quadruple mounts for belt-fed, water-cooled, Canadian-built, 2-pounder naval pom-poms. The Canadian naval ordnance programme features four types of guns and twelve types of mountings.

THE W.A.A.F. STAND BY FOR THE RETURN OF THE BOMBERS. This is the crew of a Halifax bomber which had just returned from a big raid on Germany. The airmen taking part in such raids can now go straight from their aircraft to the new Drying Room which has been opened to them on various stations, and which are each under the care of a W.A.A.F. Safety Equipment Assistant. This is the latest method in Bomber Command for the better care and maintenance of costly flying kit. In the picture above Leading Aircraftwoman Margaret (a veteran of two years' standing), A.C.W. Agnes (bending down), and A.C.W. Mary (on right) are assisting the bomber crew to divest themselves of their kit

AN R.A.F. "TANK-BUSTER" IN AFRICA: A first official photograph of the Hurricane IID fighter fitted with heavy-calibre guns and designed primarily for attacking armoured vehicles. The Hurricane IID carries two 40-mm. guns, one of which is fitted under each wing: these are capable of automatic or single-shot fire and they fire a shell weighing 2½ lbs. The 40-mm. guns have been specially designed for aircraft use, and weigh only 320 lb. each. The Hurricane IID's have been used for attacks on tanks, armoured fighting vehicles and transport in North Africa. Although to the Army generally they are known as "tank-busters," the squadron which uses them prefers the term "tin-openers"!

LEAST-KNOWN MEDITERRANEAN ISLE

Mussolini's Development of the Big Island of Sardinia Before, and Since, the Opening of War. Described by FERDINAND TUOHY

CONSIDERING the continuous role Sardinia has played in Europe's war-making since 1936, it is odd that we haven't heard more about this second largest island of the Mediterranean. Sardinia was used as one of the Italian bases for the incursion into the affairs of Spain, particularly for aerial purposes, and has constantly, since 1940, been a principal Axis prop in the south. The Germans began going to Sicily in December 1940. When they established themselves in Sardinia, and to what extent they are there to-day, have not been written. Such matters may be clarified as this island becomes involved in the intensely difficult approach to the Mediterranean mainland of Europe.

Cagliari, the capital, was bombed with Skuas and Swordfish of the *Ark Royal* within a week or two of Italy's regrettable gesture in the back of France. In the same year, the Fleet Air Arm carried out a unique exploit when it torpedoed the Tirso dam which gives Sardinia much of its power supply and also irrigates a big area. After the action at Taranto, parts of the Italian Fleet repaired to Cagliari, but the next time Sardinia figured prominently was in August of 1941, when Admiral Cunningham's Mediterranean Fleet—a force that has deserved well of its country—sent destroyers into the roadstead of Alghero, in the north-west, whence, among other things, cork forests were set alight, while British flying-boats attacked the sea-plane base at adjacent Porto Conte.

In September 1941, the Afrika Korps was reported as using Cagliari, though one fails to see why it should have done so in order to get to Tripoli. Whether Rommel did or did not use Sardinia, the island has represented a perpetual force against Britain—one of the difficulties which the laughed-at Italians put in the way. Some of the most damaging air-reconnaissance work over Allied convoys and the Mediterranean Fleet has been carried out from Sardinian aero-naval establishments at Elmas, in the south, Alghero, and Terranova, opposite Corsica. But Sardinia is too rugged and mountainous, even to one side of the island turning its back, on high, to the Italian mainland, to have provided airfields and bases on the same scale as Sicily—at a guess, the proportion may be as eight or nine to twenty. Sardinia's strongholds are Cagliari and La Maddelena. The latter was, in particular, transformed into a powerful base which has great natural protection from a string of islands and from a mountainous range. I tried to get across there from Ajaccio in 1931, but it wasn't possible, and I afterwards heard that policing was so strict in the locality that rare foreigners had an escort even when visiting Garibaldi's tomb on Caprera—one of Maddelena's seven islands. In its way, this was rich; but then, if any of the dead have twirled in their retirement Garibaldi has.

With the exception of parts of Spain, Sardinia has, of Western Europe, maintained itself longest in the past. The local inhabitants are chiefly of Catalan and Genoese stock and until 1914 were contentedly living in those Middle Ages which are held up to us by town councillors and their mental ilk, as shameful, scandalous, murderous times. But going to a modern war quite altered the natives; then went their natural hospitality to the passing stranger. One became a paying guest—with luck, in a family ever so slightly leavened by past brigandage. The most illustrious of latter-day British paying guests was D. H. Lawrence who, not giving a hoot for the amenities or for hot and cold running chamber-maids, found in Sardinia a near and complete escape, and he lived long enough to witness in the '20's the last of Sardinia's genuine saintly fiestas at which bare-backed riding was a feature, and brightest red the rioting colour on men and women alike—red and white. Black woollen kilts were also worn.

In Lawrence's day Sardinia was still highly Socialistic—as late as 1937 a score of Communists were sentenced at Cagliari—and the difficulty Mussolini had, in making himself accepted by the islanders, was second only to that he encountered on the former republican territory of Genoa. Under correction, he has not ventured across from Gaeta or Civita Vecchia more than three or four times, and there was a gap of something like ten years between visits at one stage. His most resounding visit was to Sassari in the summer of 1935 when he bull-frogged at us and our strange democracies, in bidding *arivederci* to troops Ethiopia-bound. To the sink with public opinion, was that day's declamatory menu.

But this is not to say that the Fascists did not labour long and intelligently at drawing Sardinia from its backward state, perhaps chiefly visible in its sorry health record which showed abreast, a high birth-rate and death-rate. Even under birth-drives such as are threatened here by politicians who fail to realise that the world of to-morrow goes to quality, not quantity, the Sardinians have not increased much above 900,000. They mostly live in large-sized stone villages counting 4,000 or 5,000 inhabitants. They are quite small of stature—not much above 5 ft., the men—and quietly dignified, as are nearly all peasants—and fisher-folk. They seldom leave their island and are neither emigrants nor sailors. Apart from preventable disease, the Sards are a hardy lot, as indeed they require to be in their climate of big extremes. I would not agree that Sardinia is a drab, unfriendly isle, as a friend insists. No place of wild grandeur can be that. But it does have a very tricky climate, ranging from semi-tropical conditions and prickly pears at all-white Cagliari to piercing winds and snow up in the hinterland. The Fascists did their usual high-stepping, such as the building of a township called Mussolinia di Sardegna which was officially opened in 1934 to await its scheduled inhabitants, but they did their best on limited funds to develop the island's minerals, agriculture and industries, among which fish-canning is prominent. They much augmented the yield of meat, wool and cheese. All this necessitated immense irrigation work and power development, the centre of which is that 70-metre-high Tirso dam which may soon again be visited by Fortresses or Wellingtons. This barrage, which operates on three other rivers, supplies practically the whole electric requirements of the island, and in addition serves to water thousands of hectares. Artificial lakes were also created near Santa Chiara and the Coghinas, because the few rivers either rage or dry up, and stock-raising was greatly increased, and land and forest reclamation undertaken. There is no use in saying the Fascists did not improve the material lot of the Sards because they did, not least in knocking off that especially malignant malaria which was one with the former curse of the Pontine Marshes and the Ostia country.

As usual, the Fascists outbuilt possibilities, and this was perhaps most visible at Carbonia, a specially designed coal capital near Cagliari. In 1938 the Duce did some private visiting there, because it wasn't functioning according to a dizzy schedule of 1,000,000 tons a year. He ruled that Sardinia should number 4,000,000, and he expected the island to produce far more coal, iron, copper, lead, zinc, manganese, and the rest. Some years ago the number of mines had risen to over 150, with their main centre at Monteponi, in the south. German engineers have been reported since last year, also German overseers in war-production factories.

Carbonia was scheduled for 20,000 inhabitants. With more certainty, one can give the populations of Cagliari and Sassari—around 60,000 and 40,000. Maddelena has around 10,000. These are the chief towns of the three provinces. Cagliari, which has a university, cathedral and Government buildings, must have been terribly shattered, as witness one official casualty list alone—653 killed and 3,000 injured. The unfortunate Sards, shepherds and cattle-breeders that they are, had best leave as far as possible for their hills. Three-quarters of the island is mountainous and little cultivated, but they have fair rail and road facilities, even should they collide with a brigand hang-over at journey's end. No doubt one of the reasons Mussolini declared Sardinia an operational area was to acquire the power to marshal its civilians, who are now under civil commissars, who are, in turn, under the military. This is to prevent panic and subversive acts. The latter may be expected to increase under skilful, close-up American radio work.

With regard to the brigands, they carried on until ten years ago, when it was necessary to send 500 Carabinieri from the mainland to quell eight or nine kidnappers, whose chief had the Erse-sounding name of Padrigheddu. "A campaign of three months terminated with a sharp battle," according to the records. But the real class bandit was one Samuele Stocchino, who worked his private vengeance on eleven people, with dagger and gun, before being destroyed in 1928. Samuele was the goods. He was a young returned soldier and none could get him off his vendetta. He lived up in the wild-boar jungle of Nuoro, and if people didn't bring him daily food, they knew about it. But he was always regard itself towards the women, whose name Sardinians guard jealously.

Samuele distrusted all shelter and at night slept on the open heath in his sheepskin, gun handy. He wore rubber shoes for occasional kidnapping, and relied greatly on field-glasses. When Samuele passed on, these very superstitious islanders touched his left foot and sprinkled the corpse with salt and dry olives. Later the relatives, to the tune of eleven families, sang rural ditties and danced to the pipes in the village square. They had cast out Samuele. Their language, by the way, is not easy to understand. It takes considerably from Latin, and there are several dialects.

And so is Sardinia, with the usual footnote that it was occupied by the English in 1708. That was the War of the Spanish Succession, which shifted the island to Austria after 250 years of Spanish viceroys. Then to the Dukes of Savoy, and so to Piedmont, the great-grandson of whose unifying Victor-Emmanuel II., Umberto, recently toured the island and reported to Mussolini.

From April to June is the best weather. After that Sardinia becomes very hot and arid. While there are several good, natural harbours, Mussolini kept the island so long a next-to-banned area that he assuredly has surprises in store. As I said, I failed to get across from Ajaccio some years ago. They refused to believe that I desired to visit a petrified forest in the north; nor did they budge when I spoke fervently of a neighbouring Punic relic known as Bes, the God of Evil.

THE CAPITAL OF ITALY'S CLOSELY-GUARDED ISLAND: Cagliari, which first received attention from British bombing aircraft (from the "Ark Royal") a few days after Italy's entry into the war in 1940. The harbour, into which parts of the Italian fleet repaired after the action at Taranto, recently received a terrific pounding by 100 Flying Fortresses, escorted by powerful squadrons of Lockheed Lightnings. Further air attacks may be confidently expected on this important base very soon

MALTA WILL ALWAYS REMEMBER THEM: A ceremony amongst the scarred dockside buildings in honour of the men of one of the regiments stationed on the island who played a great part in its defence under the terrific Axis assaults

FROM the HEROIC ISLAND of MALTA

To commemorate the sterling service rendered by the men of one of the regiments stationed in Malta, a tablet—in the form of their regimental badge—was recently unveiled in the rocky walls of a much blitzed dockside building. Prior to the unveiling, detachments of the regiment were inspected by Vice-Admiral Sir Ralph Leatham, former Vice-Admiral of the British Mediterranean island outpost. The interesting picture given above was taken as men of the regiment assembled for the ceremony.

On right—

All the petrol supplies in Malta are reserved for use by the bombers and fighters of the Allied Air Forces, which are keeping up a constant offensive from bases on the Island. Every drop of the precious spirit has to be brought by tanker through waters swarming with hostile planes. There is, consequently, such strict economy that men servicing our aircraft have to travel between the stations and the dispersal points on bicycles. A number of Army men have been assisting the R.A.F. in such duties for some time past.

SAVE PETROL BY CYCLING IS ONE OF THE ORDERS OF THE DAY IN MALTA. Petrol is a very precious commodity, and even the Army men helping the R.A.F. on the island's airfields have to use bicycles instead of cars

THE EARLY MORNING SWEEP: MINESWEEPERS AT THE FIRST FLUSH OF DAWN GO OUT INTO THE CHANNEL to sweep up the mines which the enemy ma trawlers of about 450 tons. They are armed with one 3-in. and anti-aircraft guns, and each flies a balloo

Every day, and sometimes at night too, the minesweepers go out on their dangerous task of keeping the seaways clear for the vessels which bring in the vital supplies for ourselves and our Allies. Their deeds are not recorded daily, but their work is indispensable: the mine is as dangerous and destructive as the torpedo, and the sweepers must ever be at work on seas which may look innocent enough on the surface, but which may hold lurking death only a few feet below the waves. Their work in the last war was recorded, amongst others, by Rudyard Kipling. In this war—owing to the presence of mine-laying aircraft which operate mainly at night—they have been called upon for even greater and more hazardous efforts than those of 1914-18. When detailing the losses incurred by the Royal Navy since the outbreak of war up to February 28, 1943, Lord Bruntisfield said in the House of Lords recently that we had lost, amongst other vessels, 23 minesweepers and 162 trawlers (the majority of the latter, of course, act as minesweepers, too). It will thus be appreciated what a dangerous task minesweeping is! In the Royal Navy there are two main types of minesweeping vessels—the "Fleet Mine-sweeper" proper and the ex-peacetime fishing-trawler. The former type are specially constructed

AN ARMED TRAWLER-MINESWEEPER MOVING OUT JUST AFTER DAYBREAK TO CARRY OUT HER DANGEROUS DUTIES: This picture was taken in the early days January 1940, just after the outbreak of war. For armament, this ex-fishing vessel mounted one gun on a specially-built platform forward. Her cre consisted of the men who, in happier days, brought the fish to British markets: now they are part of the Royal Navy

have laid by aircraft during the hours of darkness. These vessels are usually for the frustration of enemy dive-bombers—*Drawing by Montague Dawson*

vessels which range from about 600 to 900 tons displacement, with a complement of from 70 to 80 officers and men. The trawlers are usually vessels of from 400 to 600 tons: at the outbreak of war these fishing-vessels and their crews are taken over by the Navy. The number of mine-sweeping vessels at work around Britain is very considerable: since the opening of hostilities, too, further numbers have been built—some at Canadian shipyards. The great majority are armed with deck guns and anti-aircraft weapons. When at work, they fly aloft barrage-balloons as a deterrent to enemy dive-bombers

The UNCEASING WORK of the MINESWEEPERS

In Keeping the Seaways Clear for Warship and Merchantman

A MINESWEEPER COMING INTO PORT AT THE END OF A DAY'S WORK, one of the least publicised but most dangerous of the Navy's jobs. These small craft, manned in great part by volunteer peacetime fishermen, deliberately seek out danger areas to keep the sea lanes clear for Allied shipping. Note the guns at bow and stern of this vessel, and her general appearance of compactness and efficiency

WHAT THE MINESWEEPER CREWS MUST ENDURE. Heavy seas off the coast as the sturdy vessel forges her way ahead. Mines must be swept up, no matter what the weather. This picture was taken just after an attack by E-boats on a British convoy had been beaten off

THE "CAPE PORTLAND" TRAWLER ON THE NORTHERN PATROL. This fine vessel formerly belonged to the Grimsby fishing fleet: recently she was employed on the supply route to Russia, when this picture was taken from the deck of a similar vessel (which has already destroyed one Heinkel and has another "probable" to her credit). Note the forward gun and its platform mounting at the trawler's bow

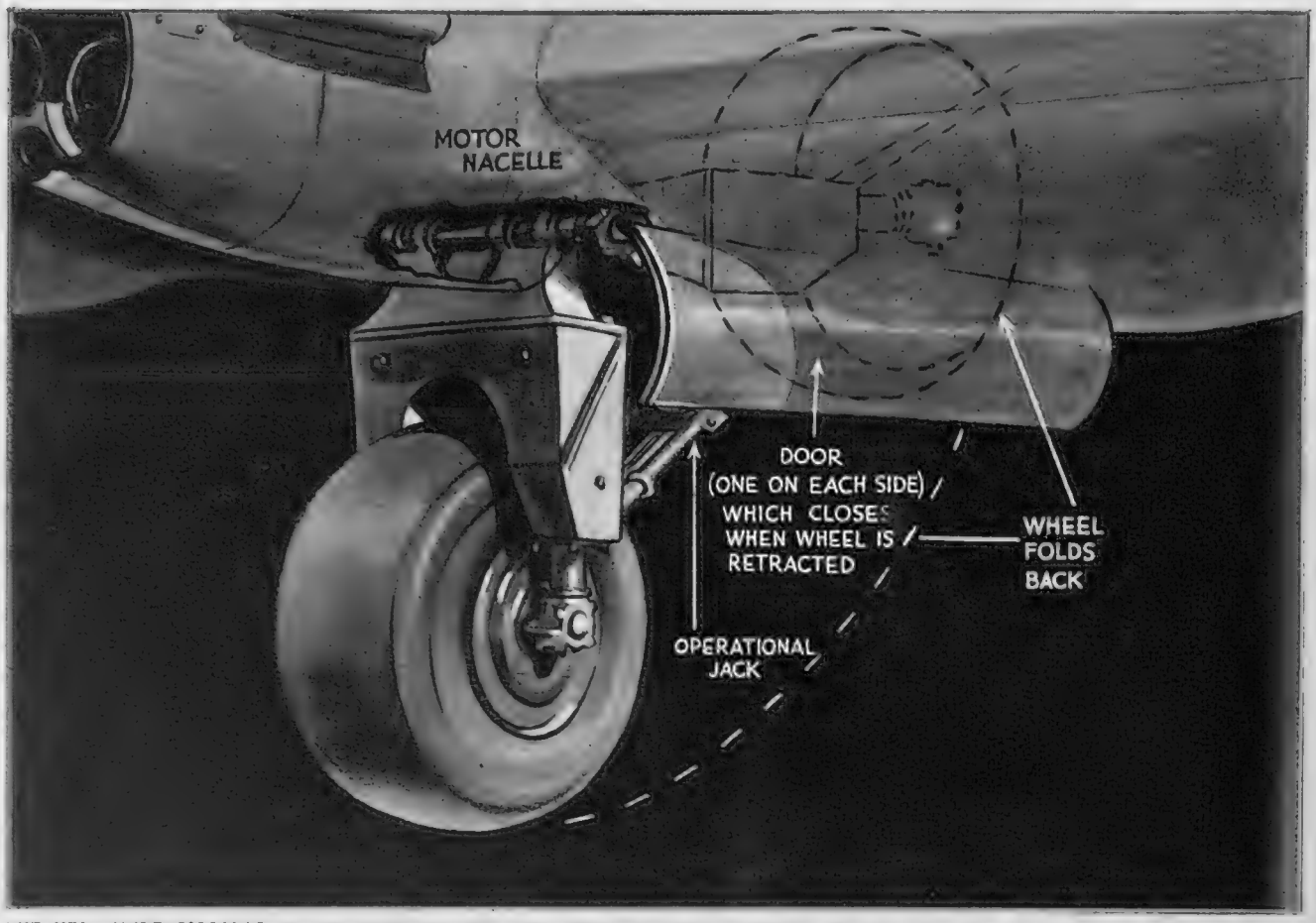
A GUN CREW READY TO DESTROY A GERMAN MINE sighted on the surface and thus clear the seas of another deadly menace to Allied shipping

The War by Air

THE BIG BOMBERS on the Ground

Flying Problems are not the only Difficulties with Modern Bombing Aircraft

—A note by PATRICK HAMILTON



THE NEAT UNDERCARRIAGE OF THE HUGE HALIFAX AND HOW ITS GREAT WHEELS FOLD BACK. The three wheels of a big bomber have to support a weight on the ground equal to four London buses! When they are retracted after the take-off, doors close over the wheels, to complete the aircraft's streamlining

WHEN a fully-laden big bomber trundles down the runway, its three landing wheels are supporting a weight equal to four London buses. Of course, long before it reaches its take-off speed of 90 m.p.h. or so, the wings begin to shoulder some of the load. Even so, the undercarriage is a very vital component, for the prospect of a failure in this department while the machine is still burdened with tons of petrol as well as bombs, hardly bears contemplation. The aeroplane on the ground has always held as many problems for the designer as the aeroplane in the air. It is interesting to see how the same solutions crop up after long intervals. The tricycle undercarriage is now coming back again, especially on American machines. Last-war pilots will remember it on some models of the F.E.2B bomber of 1917. The Germans are now building gliders with multi-wheeled undercarriages. Several British bombers during and soon after the last war had four-wheeled undercarriages—the Handley-Page 400, the Vickers-Vimy and Virginia, etc.

Few people realise how large and heavy modern aeroplanes are. The Sopwith Camel, classic fighter of the last war, weighed only 1,650 lb. The latest long-range Hurricane IIc tips the scale at over 8,000 lb. In order to give safe ground clearance for the big modern propellers, aeroplanes have got longer in the leg, too. The Hurricane has an overall height of 13 ft., while the graceful Mosquito is over 16 ft. tall.

Speeds and weights were so low in the last war that a simple rubber cord device made a perfectly good shock-absorber. Now a complicated hydraulic system, machined to as fine limits as the engine itself, is needed. In the case of a big bomber, the undercarriage may cost £1,500, plus a further £70 for each wheel and £50 or so for each tyre.

Although they each work on the same principle, there are considerable differences between the undercarriage gear of fighters and bombers, apart from mere size. Most single-engine fighters have undercarriage legs carrying the wheels on a stub-axle, like a motor-car. After the take-off the wheel and leg are retracted sideways into the wing, where they are concealed by metal fairings. With bombers, the big wheel needs a double fork mounting, like that of a magnified motor-bicycle, often with extra supporting struts in the rear. Each leg of a bomber's undercarriage has one or more knee joints, and retracts in a fore-and-aft direction. It is usually arranged to fold into an extension of the engine nacelles, but the size of the wheel is now so large that it is impossible to retract the wheel completely, and a considerable portion of it still protrudes in the larger machines.

The actual raising and lowering of the carriage is done by a hydraulic jacking system, with coloured light signals in the cockpit, and positive locking devices which hold the undercarriage firm under load.

Landing-wheel brakes are now essential for all the larger machines. As an experiment, one big bomber was landed and allowed to "free-wheel" until it stopped of its own accord. It is said to have travelled nearly three miles. The brakes as now fitted consist of a series of bronze and steel discs, some rotating with the wheel, the others stationary with the axle. Under hydraulic pressure the two sets of plates can be brought together, when they exert a great braking effect.

When a landing bomber lowers its wheels it may be travelling at 100 m.p.h., and the actual contact with the ground may easily be at 90 m.p.h. Up to the actual moment of contact, the landing wheels may not be turning at all, and the effect of contact with the ground, causing instantaneous acceleration of the wheels, is a serious cause of tyre wear. If bombers get much bigger, provision will certainly have to be made for driving the landing wheels as well as braking them.

When an ordinary machine takes off, it loses the assistance of its tail wheel as soon as the tail rises—quite early in the run. Careering over the ground on two wheels at 90 m.p.h. is obviously an unstable business. Many designers feel that the nose wheel is the answer to the problem. Unlike the tail wheel, the nose wheel stays in contact with the ground at least as long as the main wheels. With this three-point contact, the tendency of the plane to oscillate from side to side is much reduced. Naturally, a tricycle machine dispenses with a tail wheel, since the nose wheel keeps the machine on an even keel. Landing technique is also quite different with a nose wheel. The ordinary plane ends its approach with a partial stall, tail-low. The tricycle plane is flown on under power, and so can sustain higher wing-loadings—a great asset to the designer. Nose wheels are already permitted a certain amount of castor action. Before long it is possible that the pilot will be able to steer them, just as a car driver does.

ON THE SHORT STIRLING BOMBER THE WHEELS DO NOT COMPLETELY RETRACT: They fold back into the wing, but a portion still remains outside. The size of the wheels is terrific, and the whole undercarriage is a triumph of modern engineering design

—Drawings by Roland Davies

HOW THE R.A.F. PILOT'S DINGHY HAS EVOLVED: An impression of the latest type, which is now equipped with a sail and a weather hood. Sailing instructions are printed on the sail! This one-man dinghy is a model of compactness, and greatly improves the pilot's chances of being rescued after a forced descent into the sea—*Drawing by E. G. Lambert* (See notes at right)

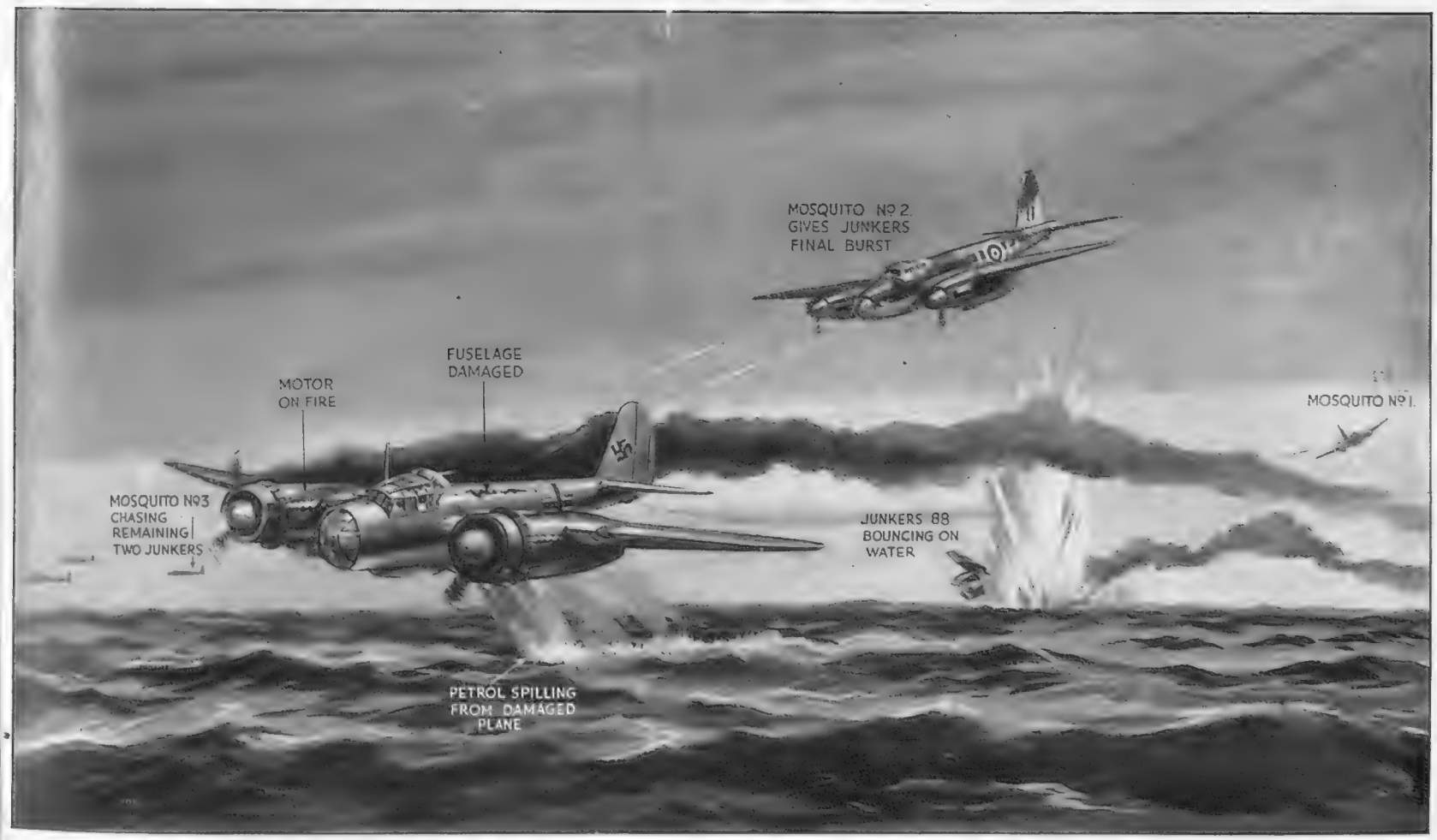
***On left*—The new one-man dinghy of the R.A.F.**

This new type, which has just been put into commission for fighter pilots, has been designed to give more protection from wind and weather after a forced landing over the sea; and it also provides for the stepping of a collapsible mast. Like the earlier types, the new dinghy is contained in a pack worn underneath the parachute. It opens and inflates automatically: when the mast has been set up and the sail hoisted, instructions for sailing the craft are right before the pilot's eyes, being printed on the sail itself! The dinghy can only sail *before* the wind; if the pilot wishes to set a different course, sail and mast are removed, and the thwart in which the mast is stepped can be released to form a pair of wooden paddles.

At the stern is a weather hood which can be pulled forward, and at the bows is an apron which can be drawn right up to cover the whole body. These two arrangements keep out the water and preserve the body heat—thus lessening the dangers of exposure to wind and water.

The equipment is most comprehensive: it is all contained in a dinghy pack which remains attached to the dinghy itself after the latter has been inflated. Apart from the items shown in the drawing on the left, the extra equipment includes the following:

Collapsible baler.
Drogue or sea anchor (to keep dinghy on a straight course).
Fluorescene pack (for colouring the water to assist searching aeroplanes).
Navigation compass.
Set of leak stoppers.
Rations.
Distress signals.
Heliograph.



A DOUBLE VICTORY FOR THREE MOSQUITOES OVER THE BAY OF BISCAY, when two Ju. 88's were shot into the sea, and two others were chased off. Note the petrol being jettisoned into the water from one of the enemy planes which has one motor afire and is about to crash—*Drawing by Roland Davies*

Fighter Command's latest long-range fighters—the twin-engined Mosquitoes—scored their first victory in daylight when two of them destroyed two Ju. 88's well out in the Bay of Biscay during recent operations. The two Mosquito pilots, accompanied by a third, took off from a south-west of England airfield early in the morning. When they were 60 miles west of the Gironde Estuary, one of the navigators spotted some aircraft low above the water, about two miles away. They were identified as Ju. 88's, one of the *Luftwaffe*'s fastest twin-engined fighters. Two of the Mosquitoes attacked in turn one of the enemy machines, which soon went into the sea on fire. The third Mosquito, which destroyed the other Ju. 88, was flown by an Australian. It was his first victory in air combat. "I let mine have it well and truly with cannon shells," he said. In all, the Mosquitoes travelled nearly 1,000 miles—a tribute to the endurance of aircraft and men. This was the first time the Mosquito has been officially announced as being used as a purely fighter aeroplane

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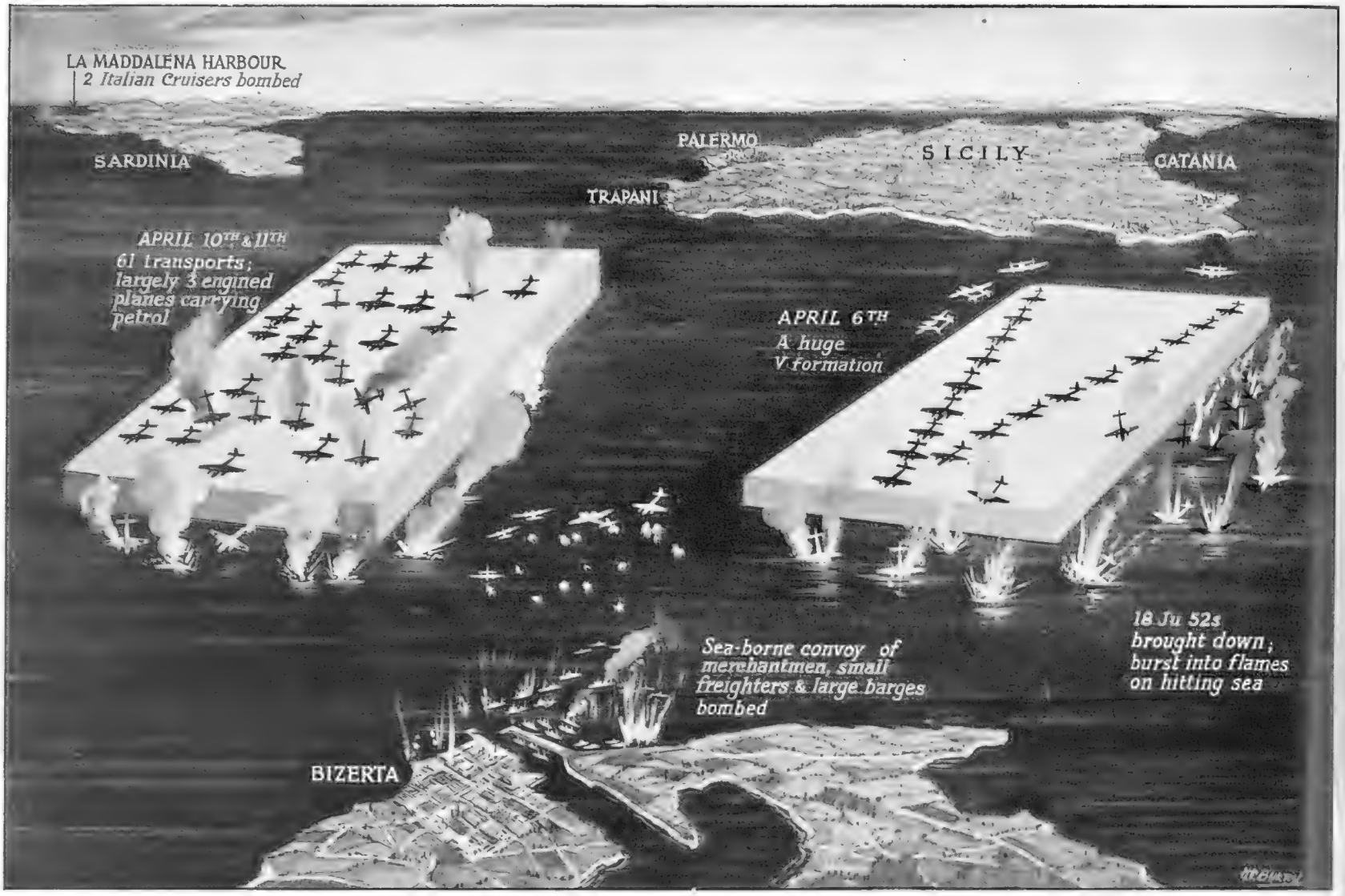


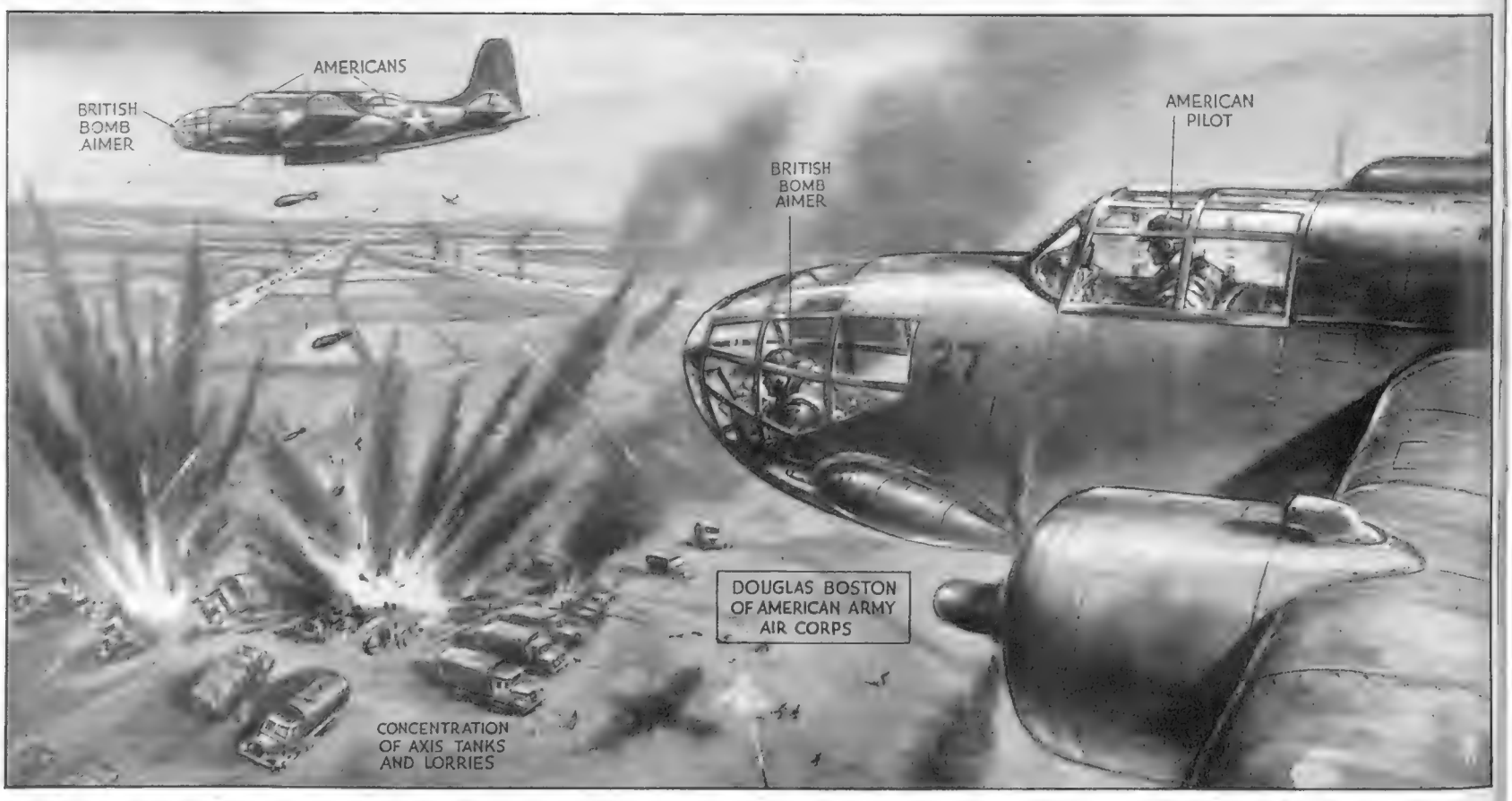
The Retreat of Rommel

The RUSH BACK to the "STRONG BOX"

And the Air Offensive Unleashed by the Allies During the Axis Dash to the North—*Special Sphere Diagrams and Drawings*

THE AIR ONSLAUGHT ON ROMMEL'S SUPPLY LINES DURING HIS RETREAT INTO THE TUNISIAN "STRONG BOX." The heavy losses to his air convoys from Sicily to the bases of Bizerta and Tunis
—Drawing by H. P. Burton

The work of the R.A.F. in three typical days is here indicated in diagram form : the attacks illustrated all took place during mid-April, when Rommel was rushing back to within his defensive lines around Tunis and Bizerta, at a time when fresh supplies were obviously sorely needed. On April 6 an Allied force of Mitchell bombers, with Lightning fighters as escort, had been sent to attack ships in the Sicilian channel. As they dived into the attack, a big formation of Ju. 52's were sighted some 15 miles away. It was known that the *Luftwaffe* in Tunisia had been getting its fuel supplies for some days by air, and this was confirmed when, one after another, eighteen of the Ju. 52's burst into flames as they hit the sea. When sighted, the cargo planes were flying in a huge V formation, only 50 ft. above the water : they were escorted by fighters and fighter-bombers : the entire battle lasted only 25 minutes. On April 10-11, in two days of heavy attacks, Allied bombers made further onslaughts on the big carrier planes attempting to cross the Narrows from Sardinia and Sicily : a total of sixty-one of these huge aircraft were shot down—which must have been a severe blow to Arnim and Rommel, awaiting badly-needed supplies on the mainland. In addition to aircraft losses, the Axis lost merchantmen, small freighters and large barges, all of which were subjected to heavy bombing



BRITISH AND AMERICAN AIRMEN FLY TOGETHER. Following the alliance of effort shown in last week's issue of "The Sphere," here is a further example of the close co-operation between the two Air Forces in Tunisia. In an assault on an Axis transport concentration in the El Guettar region, during Rommel's hasty retreat northwards, light Douglas bombers started a fire amongst the assembled vehicles. In this operation, R.A.F. bomb-aimers flew with the Americans. It was the first occasion on which dual crews of American and British airmen have been reported in action together in Tunisia—*Drawing by Roland Davies*

HOW **THE U.S. TANK FORCES ADVANCED IN THE GAFSA-GABES AND MAKNASSY AREAS, and followed the retreating Axis through into the plains**—*Drawing by W. G. Whitaker*

As the Eighth Army came up from the south, from the direction of the Mareth Line, the U.S. Second Army worked its way eastward in the direction of Gabes, until a junction was effected between the two forces. It has been revealed that, for over a fortnight, an American infantry division tried to batter its way through to the coast. By so doing, it performed the vital task of containing most of Rommel's armour—which weakened his defence along the Mareth Line and, later, at the Wadi Akarit. The infantry had an extremely hazardous job, having to move up in most difficult country, infested with mines and subjected to flanking fire from the hills, before they succeeded in emerging on the plains beyond. The American tanks, it will be observed, bear conspicuous white stars on the turret and tail, as well as stars and stripes on the side. From a distance these appear to be almost "bull's-eyes" for enemy anti-tank gunners!

THE BOMBING OF ENEMY AERODROMES DURING THE PURSUIT OF ROMMEL. That at El Djem, 40 miles to the north of the port of Sfax, has been built quite near the mighty Amphitheatre—the greatest Roman relic in North Africa. The attack was carried out by Boston light bombers escorted by Warhawk fighters (an adaptation of the well-known Curtiss P-40)—*Drawing by W. G. Whitaker* (See notes above at right)

Below—As the enemy moved northwards during the retreat to the Tunisian tip, R.A.F. bombers attacked many of his aerodromes. That at El Djem was hit by Bostons, escorted by Warhawks, in full view of Arabs gathered in the market-place beneath the shadow of the huge Amphitheatre. The latter, dating back to Roman times, is only exceeded in size by those at Rome, Capna and Verona. The dispersal area on the east side of the airfield was straddled with bombs.

The Retreat of Rommel

THE ENTRY INTO THE GREAT TUNISIAN PLAIN

With a Note on Night Attacks, a Method Which the Eighth Army has Perfected

—*Special Sphere Drawings*

TO GENERAL MONTGOMERY and the Eighth Army in this war belong the credit for having developed night fighting operations on a bold and vigorous scale. A glance at the calendar of the Eighth Army's progress since Alamein demonstrates how large a part night attacks have played. The original push from our positions at El Alamein was made at 10 p.m. on October 23, 1942, with a full moon. The sappers had been busy since dusk, opening lanes through the minefields and marking them by broad white tapes. When the barrage ceased the infantry went forward, to be followed at dawn by the tanks.

A very similar arrangement has been followed at each of the successive phases in General Montgomery's brilliant campaign. Thus, after the initial thrust from Alamein, the next big movement commenced on January 15, with several nights of growing moonlight ahead. The attack on the pass at Homs, which opened the road to Tripoli, was also made during the January full moon, about the 20th. Tripoli itself was entered on the 23rd, after night operations during the full moonlight a few days earlier. A partial exception to General Montgomery's usual method was the assault on the Wadi Akarit made at 4 a.m. on a moonless night.

The Eighth Army has clearly demonstrated its expertness at these night advances. In their final attacks on the German Tunis-Bizerta "strong box" we are almost certain to see the united First and Eighth Armies make use of similar tactics.

Night operations are, in fact, ideal for two kinds of attacks—small, wandering reconnaissance and prisoner-taking raids, and for heavy attacks on fixed strong-points and defence systems, where the centres of resistance are non-mobile and can be plotted and ranged accurately beforehand. For the successful night action, be it large or small, the objectives must be clearly definable and understood, not only by the General Staff, but also by every man who takes part. The chances of success may then be high, even against a well-armed enemy in well prepared defensive positions. Minefields, the bugbear of daylight operations, can be cleared in reasonable safety by sappers who would have been mown down immediately in daylight. However well-sited the enemy's pill-boxes and fox-holes, his automatic weapons are heavily discounted in the dark. Trained infantry advancing at night in open order are a very poor target for any weapon.

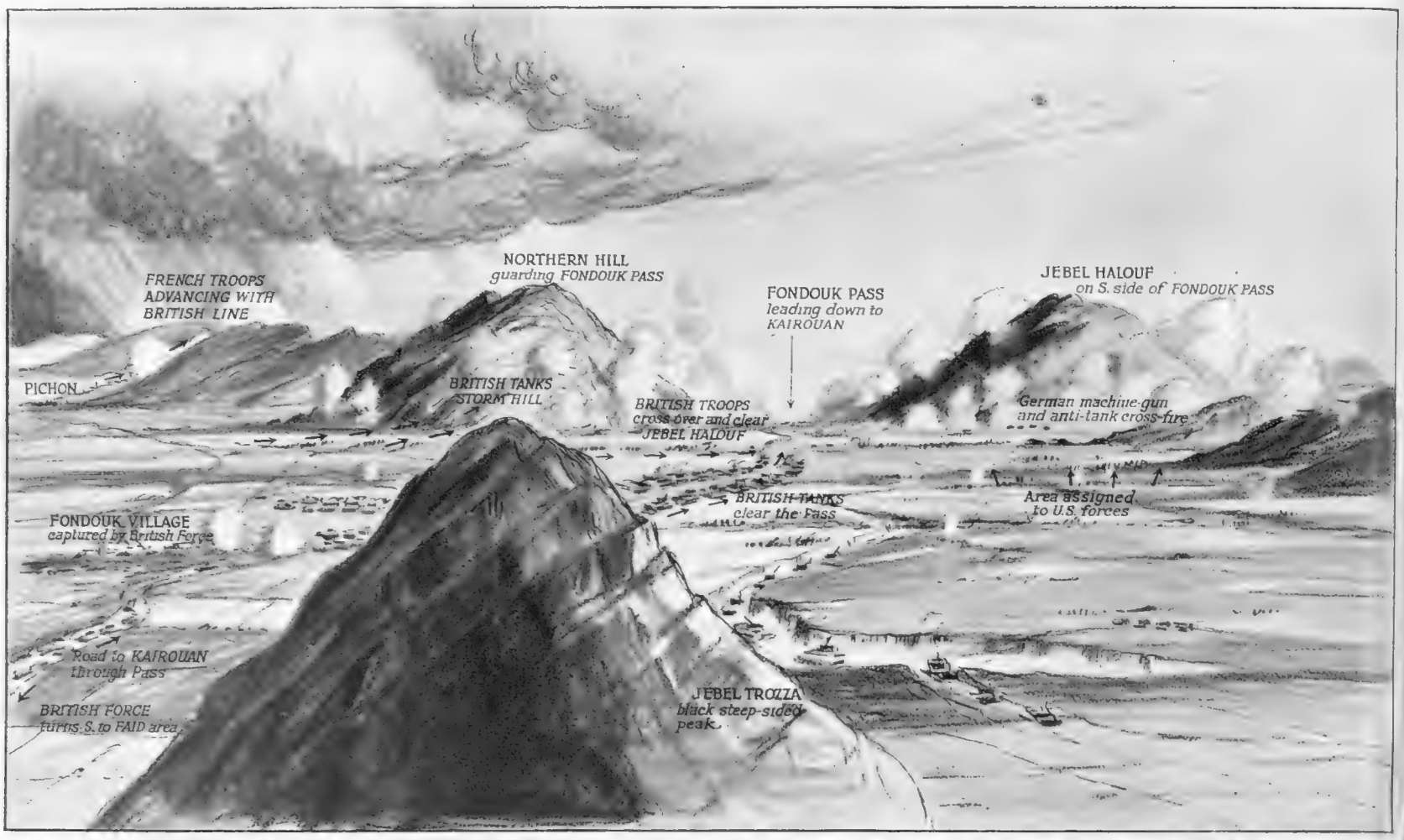
Some simple means of identification—a piece of white cloth worn on the back of the battledress blouse, or the blanco-ing in a lighter shade of the webbing shoulder-straps on the *back*, assist in telling friend from foe. The prevention of regrettable incidents, such as two converging parties in the attack firing over their objective and into each other, is a question of instruction and discipline. If the attackers, down to the youngest lance-corporal, know the objective they have been assigned, and the path by which they are ordered to approach it, such incidents cannot occur. But with troops less well experienced and directed than the Eighth Army have shown themselves to be, night attacks are a chancey business. D. C.

THE ARTILLERY BARRAGE BY 500 GUNS OPENS UP IN THE DEAD OF NIGHT AT THE WADI AKARIT to blast a way into Rommel's fortified positions on and below the two jebels. The drawing shows, on the left, the 60-pounders (with special recoil gear), with the famous 25-pounders on the right. The flashes of the guns momentarily lit up guns and crews, and the shell-bursts told where execution was being done on the dominating jebels overlooking the wadi—*Drawing by E. Byatt*

THE EIGHTH ARMY BURSTS INTO THE GREAT WIDE PLAIN OF CENTRAL TUNISIA after Rommel's last defensive line had been broken at the Wadi Akarit. Tanks, lorries, railway trains and infantry survey the green wonders of the Plain, covered with millions of olive-trees around Mahares and Sfax, after the treeless deserts they had traversed from Alamein to the Mareth Line—*Drawing by E. Byatt*

"The Eighth Army can still hardly believe it," wrote Mr. Alexander Clifford from Susa after Rommel had been chased out of the Wadi Akarit and our desert-bred infantry and tank forces had emerged into the wonderful greenness and freshness of the Central Tunisian plain. "Here at Sfax and Susa, we are in the real thing. There is everything here. Walled cities, palms, minarets, camels, veiled beauties, the whole paraphernalia of Oriental glamour. . . ." As the troops advanced northwards after the Wadi Akarit battle, they found that the seaward side of the plain (as pictured above) is covered with immense olive plantations, penetrated by roads and railways which connect the various towns and estates. Some 600,000 acres are covered with these olive-tree plantations, and the actual number of trees is estimated at about 17,500,000!

THE NIGHT ATTACK AT THE WADI: This was made in the dead darkness of a moonless night, and all depended on accurate timing and movement. In order to facilitate recognition, our men wore white badges, tape being largely employed for the purpose. The successful accomplishment of such a difficult task proved that the Eighth Army Commanders were well up to their job! A similar surprise attack was carried out by Sir Garnet Wolseley at Tel-el-Kebir in 1882 when British troops, roped together, advanced rapidly in the dark, completely surprised the enemy, and forced Arabi Pasha to flee in disorder—*Drawing by W. G. Whitaker*



THE FORCING OF THE FONDOUK PASS BY THE FIRST ARMY, in the attempt to catch Rommel's retreating Panzer forces on the Kairouan road. British tanks cleared the road and "mopped up" isolated German units, but the American forces encountered tough opposition from the enemy. The scene of this action was dominated by the fantastic Jebel Trozza, a mountain mass springing sheer from the plain—*Drawing by Percy Horne* (See notes in box at right)

The Retreat of Rommel

AFTER THE WADI AKARIT BATTLE

The Retreat of the Axis into the "Strong Box" at the Northern End of Tunisia

—Special Sphere Maps and Diagrams

The fortress defence area into which Marshal Rommel retreated after his rapid flight from the Wadi Akarit is strongly bastioned by two big hill masses which, in detail of geological and geographical formation, present features which must add to the difficulties of a very arduous task. The assaulting of such a region, full of deep, sudden valleys between hills densely clothed at their bases but often bare of any vegetation at their summits, will resemble a campaign in the North-West Provinces of India.

The enemy's actual defence line extends from Enfidaville, on the east, overlooking the Gulf of Hammamet; across a short distance of level ground; to the hills round Pont du Fahs; thence across the valley of the Meliane River over the mountains in the Wadi Kebil district; and across some lower ground to Mejez-el-Bab This district may be described as the eastern bastion.

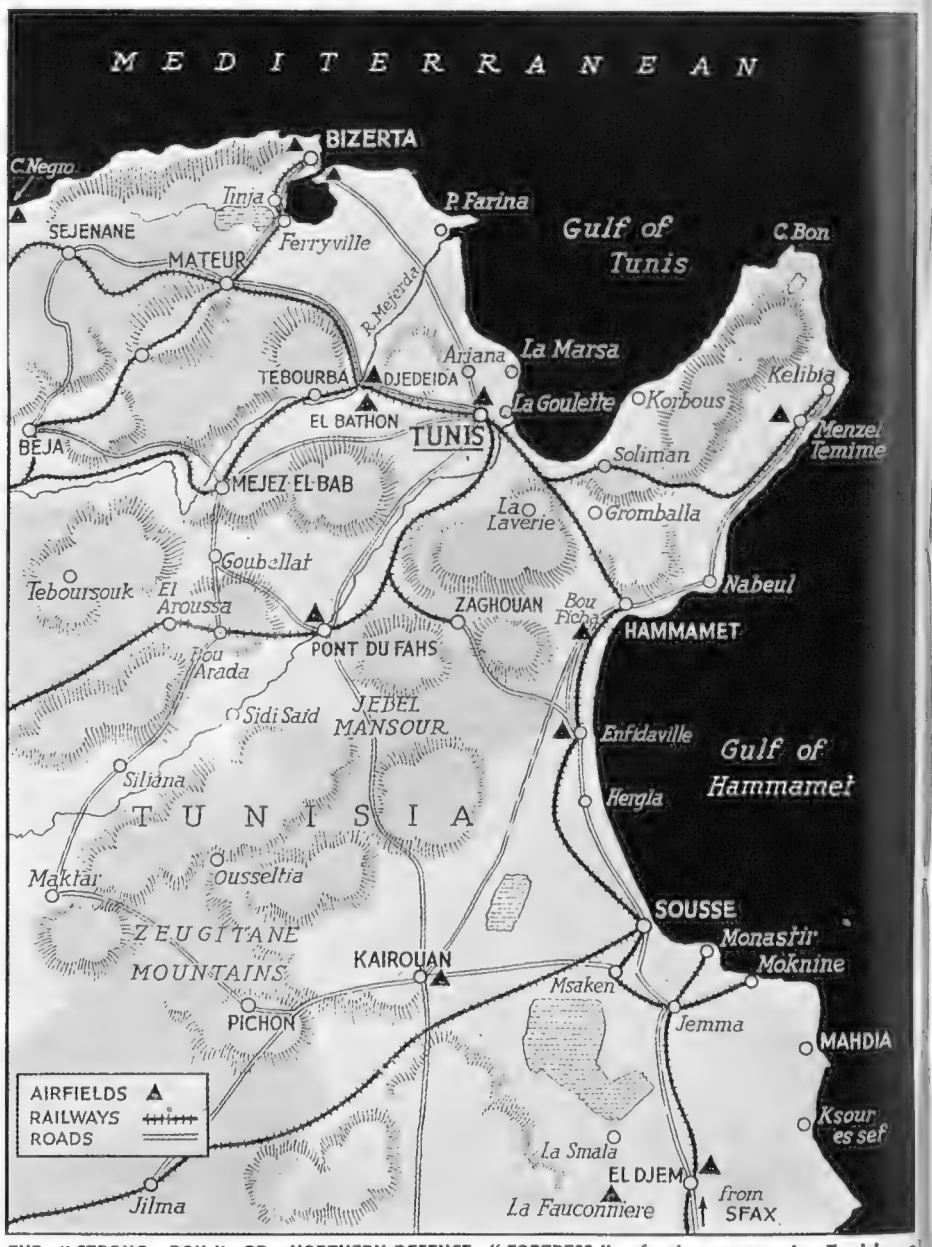
Northwards from this point, where a railway line to Tebourba pierces the defences, there extends another mountain mass, and across this the line will probably run to Cape Serrat, on the northern shore of Tunisia. This line measures about 150 miles in length, and encloses a district of some 4,000 square miles. Within it the hills towards the east extend in a north-easterly direction by way of Zaghouan, towards the peninsula which forms the eastern arm of the Gulf of Tunis. The ridge of hills runs centrally up this peninsula. The district is known as La Maouin. Two peaks in this district, the Bon Kornine (or the Two Horns), are connected with the ancient mythology of Tunisia. They are a conspicuous sight from the capital.

The lower ground within the defended area extends northwards from Medjez-el-Bab towards Tunis on the east and Bizerta on the north-west. This ground is not absolutely flat, but is broken with undulating patches, and is traversed not only by the Meliane River, already mentioned, but by the Mejerda, farther north. The flattest portion of this territory is probably that traversed by the road running from Tunis to Bizerta port. There are two large areas of water south of Bizerta port but no other lakes of any notable size exist within the defence area.

The northern massif to the west of these Bizerta lakes is very densely wooded and presents physical obstacles to any advance in mass. The eastern end of the line at Enfidaville would appear to be more vulnerable—this district is interesting as containing what is probably one of the richest farming estates of the whole of Tunisia. Several metalled roads coming from the south and west penetrate the defence line. The main roads from Sousse and Kairouan meet at Enfidaville, and then proceed north to Hammamet, in peacetime a popular seaside resort for the Tunisians. Another road from Enfidaville cuts across from Pont du Fahs, a point which is also reached from the main road from Kairouan. Towards the west a peacetime highway runs through Mejez-el-Bab to the capital; and farther north there is the highway only too well known to the First Army, running through Beja to the capital.

The coastal batteries of Bizerta are reported to be very strong; guns in reinforced cupolas have a wide sweep both towards land and sea.

The capital itself would appear to be more open to attack. It is tucked away within the inner bay of the Gulf of Tunis and has not been fortified in the same way as Bizerta. Owing to the presence of the hill masses, already mentioned, only a certain proportion of the low-lying area is suitable for the construction of airfields, but some of the best-constructed lie within the enemy territory. The attackers have a wide level area stretching southwards from Enfidaville to Kairouan, but the two open valleys towards the west are confined and present less available space



THE "STRONG BOX," OR NORTHERN-DEFENCE "FORTRESS," of the enemy in Tunisia—a stronghold which is guarded by two mountain masses and is now being assaulted by the First and Eighth Armies—*A Special Sphere Map* (See notes at left)

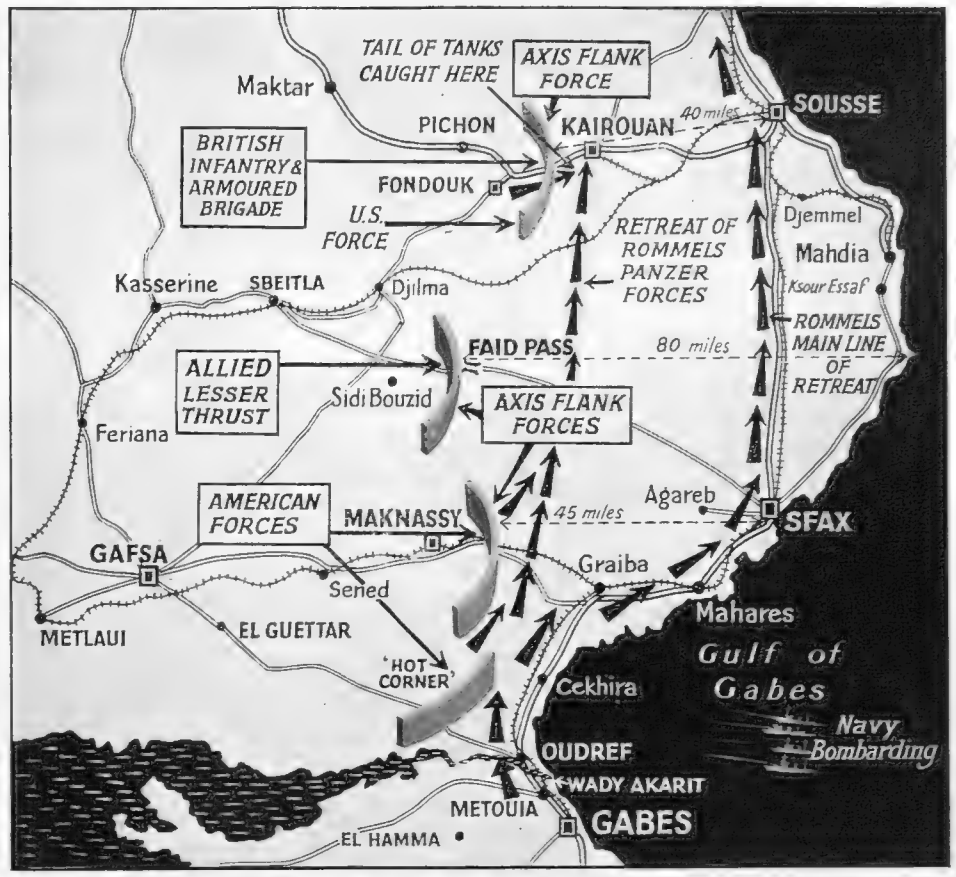
On left—**The Forcing of the Fondouk Pass**

While the main body of the Afrika Korps, its guns and baggage wagons, was pushing rapidly northwards along the main Tunisian highway to Sousse and Enfidaville, another section of Rommel's forces—the Panzers, which had been blocking the hill doorways on the west—was making its way northwards on the secondary road through Kairouan. It was hoped that a large portion of these units might be intercepted if an effective force could pierce the final German flanking position at Fondouk, and so get on to the Kairouan road and head off a large part of the Panzer units.

In pursuance of this plan, a British First Army force assembled on the northward side of the ground overlooking Fondouk village. The task of this force was to seize Fondouk, and then clear the mines which had been plentifully placed on the gully-scarred plain at the head of the pass, and, at the same time, to clear the German flanking force from the hill which guarded the north side of the pass. An area on the south side was allotted to an American force. This was, similarly, to clear the mines and to rush the jebel guarding the pass on its southern flank.

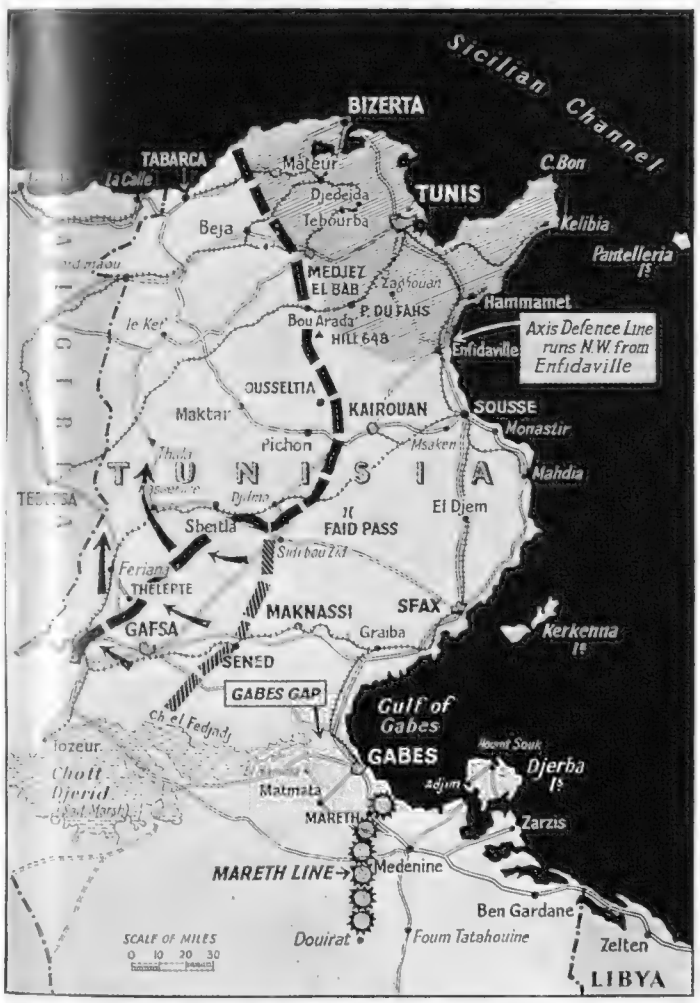
The British force duly captured Fondouk, and its sappers attacked the mines, which proved a tough proposition on both sections of the approaches to the pass. The northern hill, too, was cleared of the enemy. The tough opposition of the Germans on the southern side, however, prevented this area from being cleared in the scheduled time. The British forces rushed across and, forcing back the German positions, opened a way for the British tanks and armoured cars, which rushed the pass, not without infantry and tank losses. The Kairouan road was reached and effective damage done to the tail of the Panzer flight. From the vicinity of Fondouk village, conspicuous for two large white buildings, part of the British force turned south to "mop up" isolated German armour which had not effected a get-away in time during the general retreat.

A fantastic note was given to the Fondouk action by the presence of the Jebel Trozza, which springs sheer from the plain, recalling in form an *Arabian Nights* Black Mountain, and by the backing up of a storm of wind and rain among the hills, which added a final touch of drama to the very difficult operation



ROMMEL'S TWO LINES OF RETREAT AFTER THE WADI AKARIT BATTLE, when the German Panzer column was nearly caught at Fondouk: only the tail of the column was engaged, with a loss to the enemy of eighteen tanks. Rommel's main line of retreat lay at a considerable distance to the east, near the coast

Marshal Rommel pushed northwards by two routes after his decisive defeat at the Wadi Akarit. His main Afrika Korps and his wheeled transport took the main traffic route through Sfax and Sousse. This lay out of reach of the Allied forces pushing westwards from the hills. Rommel's second line of retreat lay much closer to the dangerous doorways on his flank: it ran due north to Kairouan and was especially threatened from the Fondouk Pass, where a determined effort was made by a British force to catch the Panzer groups as they passed northwards. The effort was only partially successful, however, but nevertheless a number of fleeing tanks were engaged and destroyed

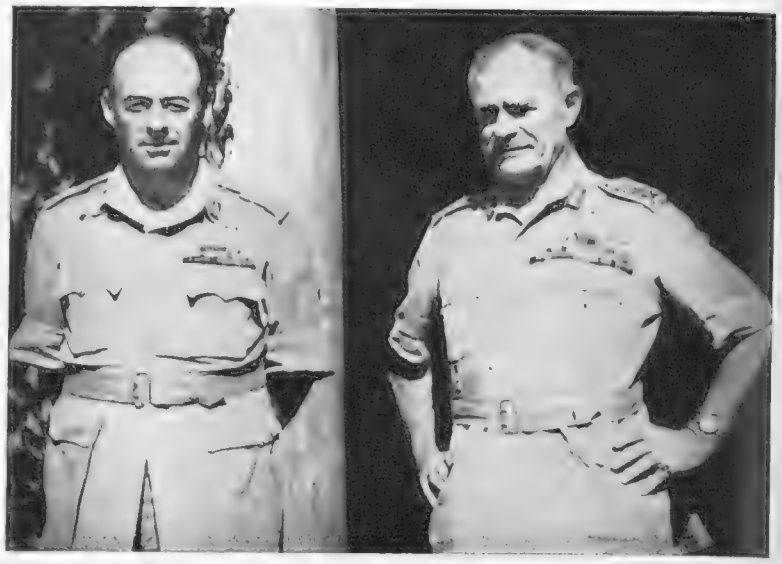


ROMMEL'S FEBRUARY ADVENTURE, when his thrust against the Americans at Thala was made via the Kasserine Pass

In view of the stretched-out position of the Axis forces from Mareth to Bizerta, the desperate thrust of Marshal Rommel towards Thala becomes of increasing interest to the military student. The German command must have balanced the risks with great nicety—the calculation as to the exact state of the Eighth Army for attack at Mareth, and the quality of the resistance likely to be met with in the west, must have been considered with judgment and intuition. The factors on the chess-board having been assessed, the dash was determined upon: as a delaying and plan-disturbing effort, it had its value. The Kasserine Pass was probably the utmost real limit of this thrust at any time. As the Eighth Army took up station in front of Mareth, the Axis were holding a line which ran through Medjez-el-Bab-Bou Arada-Sidi Bou Zid-Sened, as indicated above. Then came Rommel's surprise sortie through Gafsa and the Kasserine Pass, when it looked as if the Axis were trying to drive a solid wedge between the two British armies in Tunisia. After the successive defeats at Mareth, Gabes and the Wadi Akarit, however, Rommel then raced north to occupy the defensive area at the northern tip of Tunisia indicated by shading in the above map—with the British First Army on the west and the Eighth Army coming up from the south

MARKING THE PATHWAY FOR THE BREAK-THROUGH AT THE GABES GAP. How the route was laid out by sappers with signs and with white tape. When the break-through had been made at this point, the Eighth Army then went on to the assault of the German positions at the Wadi Akarit

THE SITUATION ON THE BURMESE FRONTIER : and the position of the fighting area around Rathedaung in the advance on Akyab. The area within the circle has now been vacated, the British forces evacuating northwards



GENERAL WAVELL VISITS THE BURMA FRONT : With Lieut.-General N. M. S. Irwin, Commander of India's Eastern Army, during his tour of forward positions on the frontier and inside the Burmese border. This area of operations comes under General Wavell's authority

The WORLD'S WORST FIGHTING TERRAIN

The Campaign of the British Forces Against the Japs in the Mayu Peninsula of Burma

IT was in the middle of last December that British and Indian troops crossed the frontier into Burma and began an offensive against the Japanese forces situated in the Arakan district. Though it was evident this movement could not mean a major operation for the regaining of Burma (Arakan being cut off from Burma proper), the knowledge that the Eastern Army was re-equipped and ready for attack was welcome news.

For months beforehand the Eastern Army had been undergoing training in jungle warfare, learning to travel at night through the jungle-clad hills, to live on iron rations and the barest of equipment. No amenities had been allowed on the eastern frontier of Assam, where the army had been hardened and supply road built through dense jungle. The Allied force, as it pressed forward into Arakan, at first met no opposition, and on December 20 occupied two small villages—Maungdaw, on the Naaf River, and Buthidaung, on the Mayu River. Maungdaw was a valuable asset, as supplies could be brought there by the sea, while Buthidaung became the supply base for troops working down the Mayu River. By the end of December the small town of Rathedaung, 35 miles south of Maungdaw was reached.

Rathedaung lies in a strong defensive position, 25 miles up-river from Akyab and guarded by hills. Its wooden houses are built on piles, over the riverside. Here the Japanese made a strong defence, holding the commanding hills, digging themselves in effectively so that strenuous counter-measures were forced upon the Allies. Throughout January and February they managed to hold on, though they lost one of the hills to Allied attack, but they succeeded in getting supplies and reinforcements from Akyab, on moonlight nights, by means of the waterways.

Another British advance party had cut their way through the hills to Kyanktaw, on the Kaladan River, to the north-east of Rathedaung, where the native population welcomed them. They had thus got footholds on three of the waterways leading down to Akyab—by the end of January. A third column had made its way down the Mayu Peninsula towards the tip where the Japanese held a small area round Donbaik. With steep hills on one flank, the sea on the other and paddy fields in the centre, the enemy dug himself in so securely that neither heavy shelling from the artillery, nor bombing from the air, made any impression. Buried in his single-man holes, the Japanese soldier would appear after the severest bombardment ready at his machine-gun.

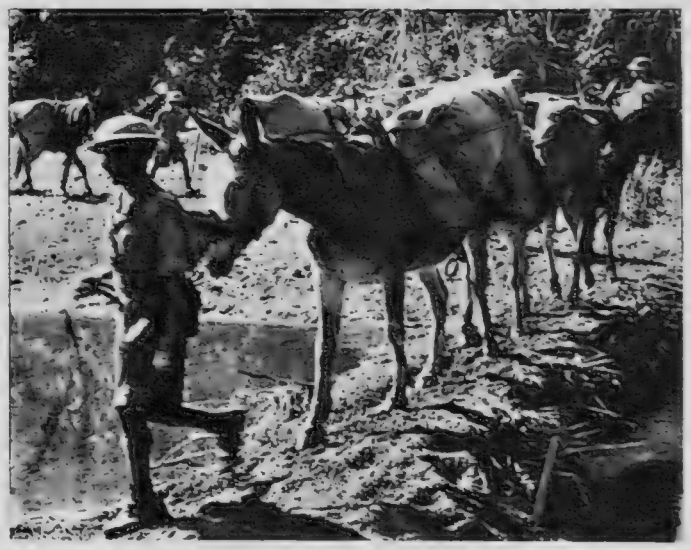
Large forces could not operate owing to the nature of the country, which made communications extremely difficult. The whole area consisted of jungle-covered hills, marshland, intersected by numerous waterways. Supplies had to come over rough roads and timber bridges, by sampans having to wait for tides, with precisely the same difficulties that had faced the British Army in the Burmese War of 1824, before any mechanical transport had been conceived. After remaining for three months on the defensive, the enemy began in the middle of March to take the initiative, and using his usual method of infiltration, to creep round the allied

HOW THE R.A.F. HAVE BEEN STRAFING THE JAPANESE SUPPLY LINES IN BURMA : A typical target in the all-out offensive against Jap forward bases, river lines of supply and mountain tracks. The vessel in the foreground has heeled over to starboard from blast. In a land where roads are rare, rivers and creeks like this are a vital part of the Japanese supply service

A LOW-LEVEL ATTACK ON THE JAP-HELD PORT OF AKYAB. A Blenheim dives to machine-gun the shipping in the harbour at this important Japanese base

THE PORT OF AKYAB, WHICH WAS THE OBJECTIVE OF THE BRITISH ADVANCE INTO NORTHERN BURMA, and the Mayu Peninsula, from which our forces have now been withdrawn. This area of jungle-covered hills and swift rivers is one of the worst fighting terrains in the world. It is here that our troops fought gallantly against the little yellow men; but with the near approach of the rainy season it was decided to withdraw towards the north—*Drawing by E. G. Lambert*

THE TYPE OF COUNTRY THROUGH WHICH OUR TROOPS HAVE HAD TO OPERATE in the unhealthy Burmese hills: A track newly hewn through virgin jungle country

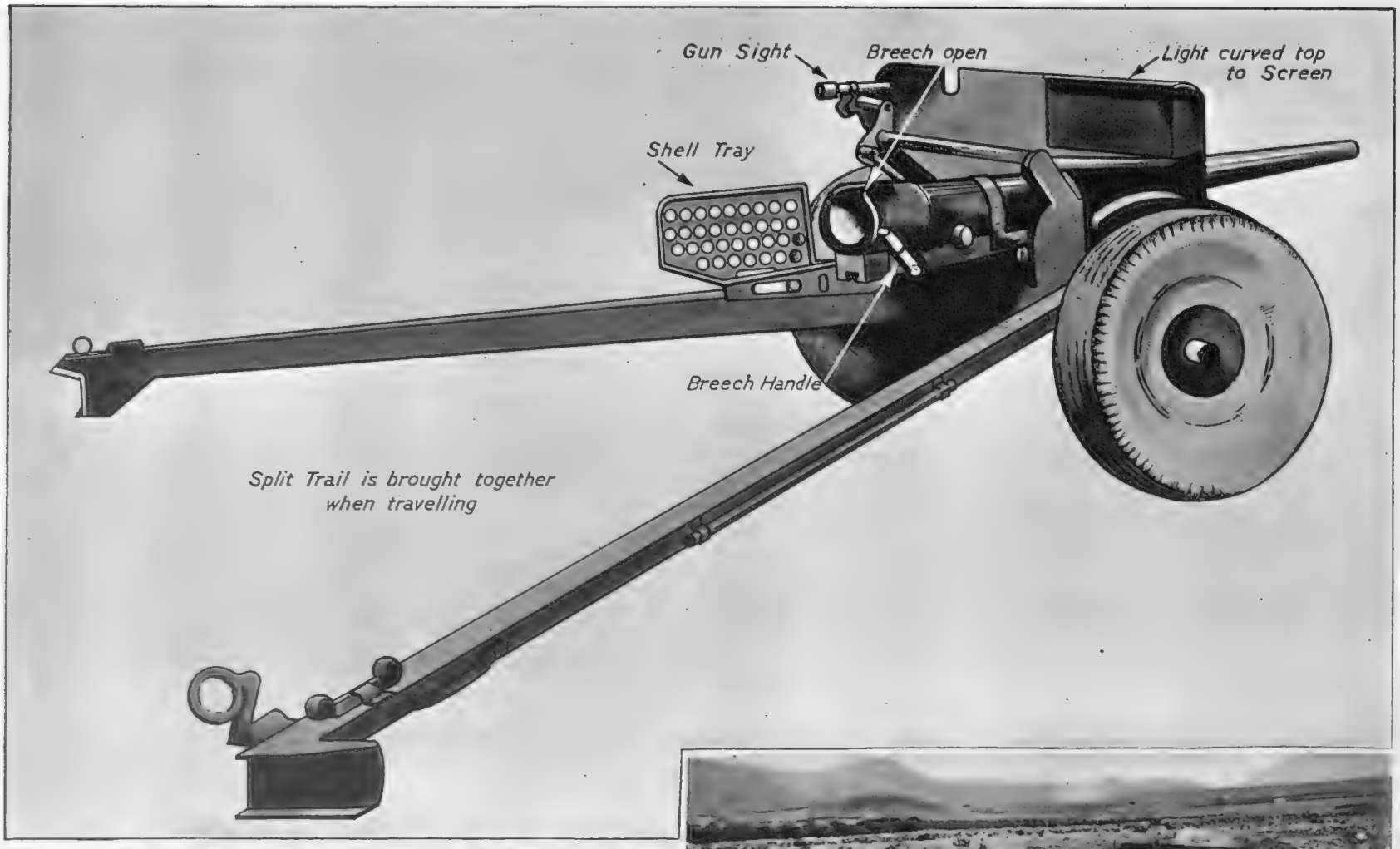


MEN OF THE ROYAL INDIAN ARMY SERVICE CORPS leading their mules through swampy country. These men have had to take their supplies to the forward troops through trackless jungle, across rivers and leech-infested swamps. They cut tracks through virgin country; river-beds are sometimes the only possible routes, and everywhere they may encounter enemy forces lying in ambush

forces on the Kaladan River, which the British had closed to them by sinking their river-launches. They penetrated to the north of Kyanktaw, forcing the small garrison there to retreat westward, while the Japanese continued over the hills to relieve the siege of Rathedaung. The enemy was trying to cut off the British on the peninsula from their base at Buthidaung. Fierce fighting took place between separate units holding hill positions, there being no front line anywhere. In spite of repulsing many direct Japanese attacks, the infiltration in the north obliged the Allies to retreat from the Rathedaung area, six miles up the river, leaving considerable equipment behind. The British and Indian troops, Rajputs and Punjabs, were obliged to give up the long, tedious struggle at Donbaik and retire with their guns towards Indin, on the west bank of the Mayu, north of Rathedaung. Here the Allies appear to be holding their ground at the moment, though the enemy is pressing hard to gain something decisive before the monsoon sets in.

B. H.

On right—**MEN OF A FAMOUS NORTH COUNTRY REGIMENT on patrol in Burma wading across a river. This particular company has had several encounters with the Japs, all of them successful**



THE U.S. 37-MM. GUN, as used in the hilly country of Northern Tunisia for anti-tank purposes. This is a most extraordinary little weapon
—Drawing by B. C. Wood

THE SAME 37-MM. ANTI-TANK WEAPON DURING AN ACTION AT THE KASSERINE PASS. The crew consists of two men—preferably small, so that they can keep well down behind the short armoured shield!

The BIG GUN and the SMALL

Notes on New Artillery Types Now Being Used in Tunisia and in Russia

—With Special Diagram-Drawings

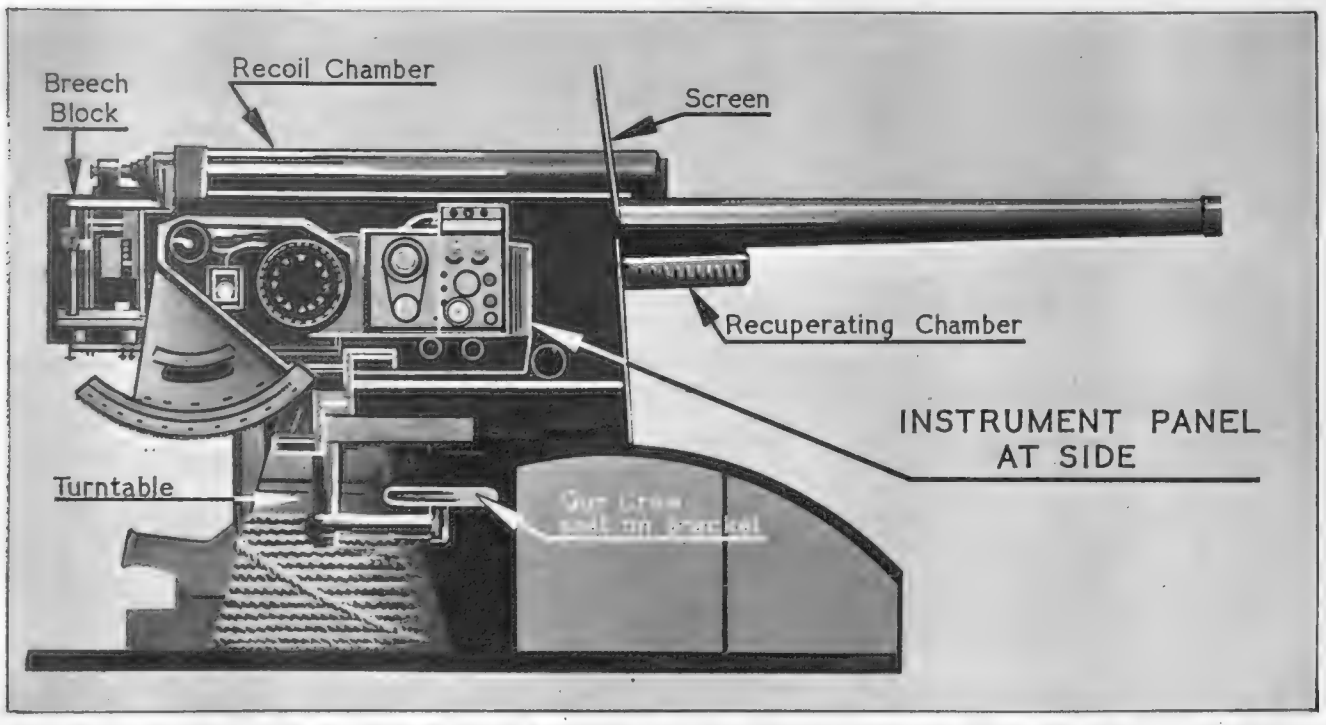
A large, toy model of the ordinary field gun is how the standard American 37-mm. anti-tank weapon strikes the observer at first. It has "everything"—but in miniature; with some new features which no big gun can possess. Thus, the mechanism is so constructed as to permit the barrel to be swung rapidly through a wide horizontal arc.

On arriving at a suitable site, the split trail is pulled apart to provide a wide anchorage and allow for this "all-angles" fire. Then, the weapon can be handled by only two men (preferably, as the accompanying photograph shows, small men—so that they can keep well down behind the short armoured front).

It will be seen in the photograph, taken under heavy German artillery fire during the Kasserine Pass battle, that the breech of the gun is open and ready to receive a shell. It is closed by the handle at the right of the open breech, which is pushed upwards, at which the hidden block swings round into position. There is a close resemblance between the American 37-mm. and our own two-pounder anti-tank gun; but our new six-pounder is in another class and far more powerful.

In the new artillery organisations of the U.S. Army, there are now experimental tank-destroyer battalions, consisting of light and heavy anti-tank guns on self-propelled mounts; and mention should also be made here of the anti-aircraft and anti-tank platoons attached to Battalion Headquarters batteries. Each platoon consists of nine half-ton trucks carrying machine-guns, and six of them towing the 37-mm. guns. All these formations, with the exception of the largest howitzer batteries, have already done good service in Tunisia, though at first their characteristic organisation was often disrupted by the necessity for sending swift help to groups of the First Army and the French forces.

The drawing given above shows the chief points of interest in this extraordinary little weapon, and also indicates that it is mounted on stout rubber tyres.



AN ABANDONED ITALIAN 90-MM. ANTI-AIRCRAFT GUN, showing how the instrument-panel for this weapon is placed at the side. This gun was captured by the Eighth Army during the last stage of the drive on Tripoli—*Drawing by B. C. Wood*

On left—
This Italian weapon is a long-barrelled gun, with recuperating and recoil chambers, as indicated in the drawing. Its front shield and side pieces are very tough and afford complete protection to the gunners. The manner in which the instrument panel is placed at the side is interesting: it indicates a method which has also been adopted for all modern German artillery pieces, the idea being to streamline the gun for protective purposes. When it was captured on the last stage of the drive to Tripoli the gun was found to be firmly placed in a well-constructed entrenchment

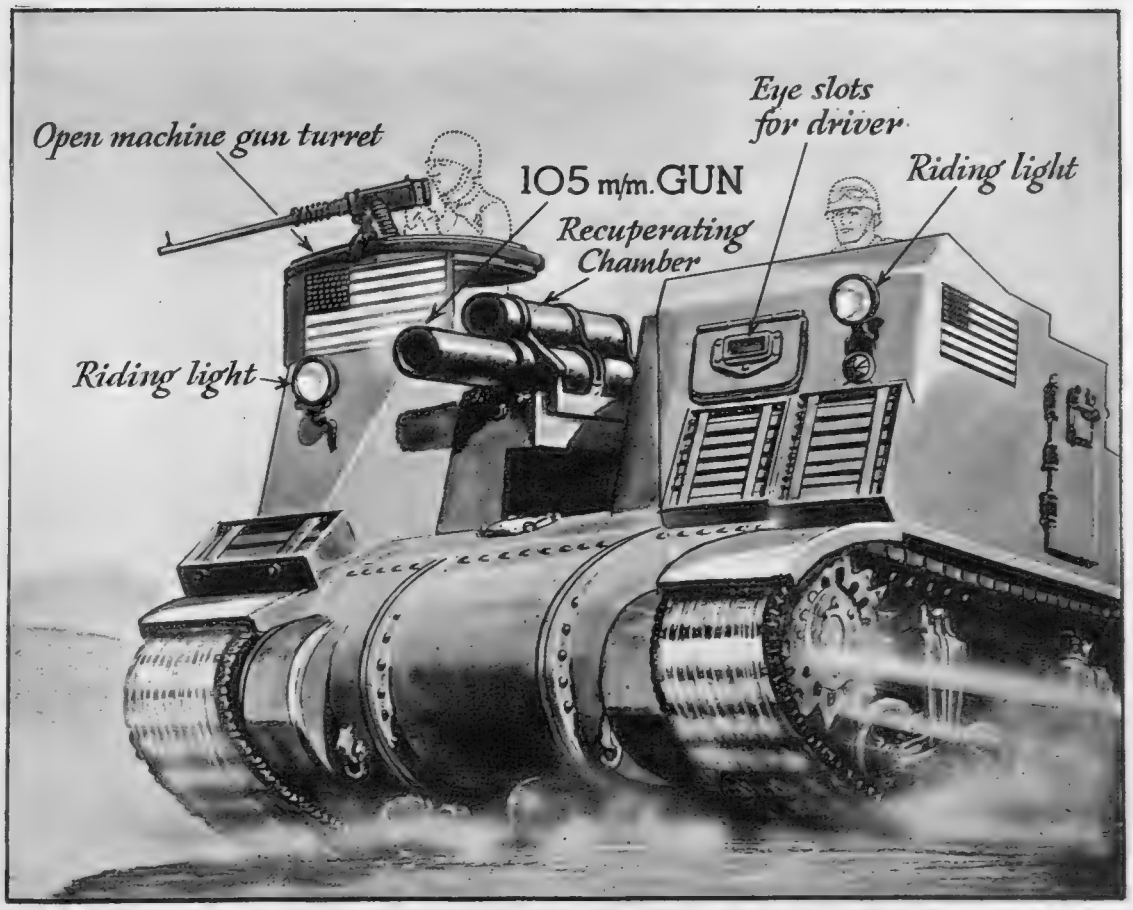
How the new American 105-mm. gun is mounted on a tank chassis for greater mobility in Tunisia

In the last war the outstanding weapon of the American Expeditionary Force was the 75-mm. field gun, based on the famous French piece of the same size. After that war, the U.S. Army conducted many experiments to improve the gun, and by 1939 had a 75 with several unusual and valuable features. These included a trail split into two sections so that the barrel might be elevated for high-angle firing, pneumatic-tyred wheels, an improved traversing mechanism to permit rapid changes in the direction of fire across a broad front, as well as improved sights.

But a study of the early battles of the present war convinced the American authorities that the 75 had been rendered obsolete as an ordinary field piece. They relegated it to the anti-tank armoury—it is retained only in the anti-tank battery of the 155-mm. howitzer battalion—and they replaced it with a 105-mm. howitzer. A similar change was made by most other armies, the Germans in particular shelving their 77-mm. field gun and replacing it with a 105-mm. gun-howitzer.

The new gun shown in our drawing is now used in the U.S. Army in Tunisia, both as a truck-drawn weapon and as the principal armament of a special tracked and armoured vehicle, as shown in the two pictures reproduced here. This vehicle has as its basis a General Grant chassis (like our own Priests).

In the accompanying drawing is indicated the manner in which the gun is mounted, in a central position: on its left sits the driver in an armoured turret; on its right is an open machine-gun turret. The crew ride behind, and ammunition is also carried in a spacious compartment towards the rear.



THE NEW 105-MM. GUN which the Americans have taken with them to the Tunisian battlefront. It is now being tested for the first time under actual war conditions in the hills and valleys of North Africa—
Drawing by Gordon Forsyth

A SMASHED GERMAN GUN with solid iron tyres on the Russian battlefield. It is a field piece of last-war design. This picture from the Russian front of a smashed German gun tells a significant story. The gun appears to be a 77-mm. field piece of last-war pattern. The only modern feature is the recuperator. The heavy, iron-shod wheels are of a type long since relegated to the scrap-heap by designers. Moreover, the Germans themselves stated in 1939 that the old 77-mm. gun had been replaced in their formations by the new 105-mm. gun-howitzer on pneumatic, self-propelled carriage. We must deduce from this picture that the Germans have been forced by Russian losses to disinter their most ancient stores—not with any success, however, for such clumsy guns would be the first to get jammed in Russian bogs, and would be death-traps for their crews under modern conditions

A GERMAN LONG-RANGE GUN IN ACTION—but by British gunners! During the advance northwards from Gabes, the Eighth Army captured this 170-mm., long-range field gun. It was salvaged by a Lieutenant-Colonel of the Royal Artillery, repaired by an R.E.M.E. unit and quickly put into action against its former owners. Here it is seen, at sunset, in position for a practice shoot into German-held territory. The gun is mounted on a heavy steel base, and has "anti-bounce" arms somewhat similar to our own fine 60-pounders. Note the sand rising from the plain as the result of blast from the gun

TAKEN FROM THE ENEMY AT "STEAMROLLER FARM" IN NORTHERN TUNISIA. This is a captured 2-cm. flak and anti-tank gun, which it is intended to use against the enemy at some future date, as it was found to be quite undamaged. It is mounted on adjustable steel legs and has very adequate frontal protection. British officers are here learning how to handle the weapon

FASHIONS IN FELONY . . .

A Visit to the Police Courts, to See the Wartime Procession before the Metropolitan Magistrates. Described by CHARLES GRAVES

IN spite of the opportunities afforded by abnormal wartime conditions, the black-out, and a shortage of experienced detectives and police-constables, fewer offences against the law are taking place in 1943 than in peacetime. I have been paying a return visit, after a seven years' absence, to Bow Street, the most cosmopolitan and important of all the police courts in the Metropolitan area—still more important now that Westminster Police Court has been abolished and a larger area, therefore, comes under its purview.

Actual figures show that in peacetime there was an average of 8,000 or 9,000 charges preferred each year at Bow Street. This figure has dropped by over 1,000. Equally, summonses have decreased from 13,000 or 14,000 a year to 10,000 or 11,000.

When I last paid a visit to Bow Street (in 1936) there was an average of 80 to 100 motorists being fined every day for speeding, causing an obstruction, and so forth. To-day, the fuel situation has reduced this number to about a dozen a day; and these are largely concerned with failure to immobilise vehicles and misuse of petrol. Mr. H. C. McKenna, one of the three magistrates (there used to be four), usually inflicts a fine of £3 for failure to immobilise by day, and £5 for a similar offence after dark. Mr. L. R. Dunne, his colleague, usually contents himself with a fine of 40s. Misuse of petrol is a very serious matter in the eyes of Mr. McKenna, and he may impose a fine ranging between £15 and £20 for an unnecessary journey of a mere mile.

In peacetime there was an average of half-a-dozen motorists a day being brought before the Court for being drunk in charge of a motor-car. To-day the number has decreased to two or three a week.

Taxicab drivers frequently find themselves summoned for an offence which was seldom committed in peacetime—picking and choosing fares when plying for hire. I listened to Mr. McKenna dealing with two typical cases. One concerned a cab-driver who lived at Wembley, and was asked by the door-man of a West End hotel whether he would take a fare. The cab-driver asked where the fare wanted to go. The door-man replied: "Clapham." The cab-driver said that he was sorry that he could not do this, as he was short of petrol and about to go home to Wembley, and could only take a fare in a northerly direction. A detective overheard the conversation, and Mr. McKenna imposed a fine of 30s., announcing that the cab-driver, by the rules of his licence, was not allowed to select his fares in any circumstances, as long as his flag was up.

The second case concerned another driver who was alleged by a detective to have refused to take an officer from Charing Cross to Shootup Hill, but agreed to take a sergeant to Surrey Street, off the Strand. The cab driver's defence was that he did not take the sergeant to the Strand. The latter had merely asked him where Surrey Street was. Mr. McKenna did not believe his story, and the driver was also fined 30s. In this connection, it is interesting to note that, apart from big penalties for currency offences, Bow Street collects an average of £50,000 a year in fines.

There was quite a spate of these currency fines eighteen months ago. The biggest was £100,000. The defendant collapsed in the dock, recovered sufficiently to appeal, and had his fine reduced to £50,000. In another instance, Mr. McKenna imposed a fine of £40,000, the appeal from which was summarily dismissed. Two other of these Breaches of the Defence (Finance) Regulations produced fines of £25,000 and £20,000 respectively. This is a class of offence which, of course, did not occur in 1936.

Another type of court proceedings which occurred very rarely indeed before the war are spy trials. There have been about a dozen of these since 1939, but they are heard in the private room of the Chief Magistrate, Sir Bertrand Watson.

There always has been, and there always will be, prostitution cases. These are now on the increase, particularly among girls of seventeen and eighteen. The older prostitutes add to their offences by robbing the soldiers, usually Americans or Canadians. In the old days a prostitute was automatically fined 40s. To-day they are frequently bound over for the first offence or two, and the probation officers are given more responsibility in handling them.

A final note about prostitutes. Many of them appear in court in coloured trousers, instead of skirts. I often wonder, by the way, whether they have to do fire-watching.

Disorderly house cases are still rare, though I happened to find myself listening to charges levelled against the manager of an alleged brothel.

There are very few alien cases in wartime, though a number of Irishmen and Irishwomen are apprehended for not registering over here. There are no extradition cases, if only because there is almost nowhere to extradite them to except the United States; and in the case of American troops, these are all dealt with in special American courts over here. Canadian troops, however, are dealt with in the English courts, and if statistics show that there are more Canadians than those of the other Dominions in trouble, this is merely because there are so many more Canadian troops than New Zealanders, South Africans, Australians, and the like, in this country.

Black-market offences occur continuously, and are mostly concerned with the illegal acquisition of controlled foodstuffs. The defendants may be restaurant keepers, merchants, or shopkeepers. The profitable character of the black market is also responsible, of course, for an increase in the theft of luxury goods, which ultimately make their way to the black marketeers.

Mr. Dunne, on this visit of mine to Bow Street, was hearing a case in which a man was accused of stealing 1,500 cigars from a delivery van. Actually, the accused man was able to produce an alibi, and so was acquitted. The fact remains that as price control is imposed on different goods, so there is an immediate reaction in the way of thefts of those goods.

Rationing offences are one of the results of the war. Much publicity was given the other day to the case of Sir Percy Laurie, who, as I write, is appealing from the heavy sentence imposed on him.

The theft of clothing coupons is by no means unusual. Identity cards, too, are apparently a matter of barter in the underworld. There was a case of this at Bow Street on my visit, the defendant claiming that the police had planted them on him just before arresting him.

Breaking into shops and private residences which have been partly damaged by the blitz are a regular feature; and, for the first time, I heard the phrase "Essex boarding" used. This, apparently, is the technical word for the first-aid repair cardboard material used in place of glass for damaged buildings. In this particular case the defendant's jemmy was produced in court. The defendant himself was a burly youth of about nineteen or twenty. And that is another noticeable feature of police courts to-day—the number of well-set-up young men who ought surely to be in the Services, instead of being reserved and able to utilise their youth and strength in offences during the black-out.

The actual black-out offence of showing lights has now decreased very considerably. At first, even during the raids, there were a number of cases, and Mr. McKenna was particularly severe in his penalties. £40 was a frequent fine, though on many occasions this was reduced to £5 or so on appeal. This particular form of black-out offence is usually punished to-day with a fine of anything between 7s. 6d. and £5, usually 40s. But, even including the waving of unduly bright torches, the black-out offences have decreased to a dozen a week from a dozen a day.

Drunkenness during the blitz reached the lowest figure ever recorded at Bow Street. But to-day the drunkenness cases are back to normal, with a high preponderance of women culprits. The high cost of liquor does not seem, therefore, to have any effect on this misdemeanour.

Cases brought in connection with the imposition of conditions of sale are rare, and forgeries are very few and far between. Since the beginning of 1943 there have been at Bow Street alone a couple of murder cases, a manslaughter case, and an infanticide case; but I did not acquire the statistics about cases of selling coupons, transgressing the purchase tax, and ration-book cases.

AN IMPORTANT OCCASION FOR THE R.A.F.: Sir Archibald Sinclair signs the extension of the Empire Air Training Scheme

This picture was taken during the signing, by the Secretary of State for Air, of the new extension of the Empire Air Training Scheme. Those present at this momentous occasion were (from left to right): Mr. R. C. Binnie (Office of the High Commissioner for Australia); Mr. W. E. Sheehan (Australian Representative) Air Vice-Marshal H. N. Wrigley (Air Officer Commanding, Overseas H.Q., Royal Australian Air Force); the Rt. Hon. Vincent Massey (High Commissioner for Canada); Rt. Hon. S. M. Bruce (High Commissioner for Australia); the Rt. Hon. Sir Archibald Sinclair (Secretary of State for Air); Mr. W. J. Jordan (High Commissioner for New Zealand); Sir John Abraham (Deputy Under-Secretary, standing); Mr. L. J. Banford (secretary); Air Commodore A. de T. Nevill (Air Officer Commanding, Royal New Zealand Air Force, H.Q., London); Mr. R. M. Campbell (Official Secretary, Office of the High Commissioner for New Zealand); and Group Captain A. J. M. Manson (Royal New Zealand Air Force)

As for the detectives, one notices a subtle change among the younger men. At least one was spectacled, while another wore a gold signet ring. When I spoke to Mr. E. M. Longshaw, the *doyen* of police court reporters, he told me that he could remember the days when constables received 23s. 6d. a week. To-day they receive a minimum of £3 10s. a week, not to mention a bonus. As I recorded of him seven years ago, Mr. Longshaw has seen junior counsel blossom out into K.C.s; he has even seen them become magistrates. Day after day the seamy panorama is unfolded before his eyes. No wonder he himself becomes a trifle bored. "We still have the same old charges, in addition to all the new ones created by the war. Human nature remains the same," he said.

I would add this, however—that there are far fewer people to-day who seem to have the time to while away an hour or two in morbid contemplation of the various prisoners in the dock. I do not think that there were four people in the No. 1 Court when I was there who were not directly concerned with some case or another; while upstairs, in the No. 2 Court, in the late afternoon, I saw what was for me an unprecedented sight—not a single member of the public present, not even a police-court reporter.

P.S.—To revert to the military age of so many of the civilian defendants, I wonder that the Ministry of Labour does not sent an official to check every day on the young men and young women who are tried in the various police courts. Obviously, a reputed thief like the one whom I saw being given three months, can be of little use to the war effort. Some of the others, however, might well be "chased."

ANOTHER "CHEQUERS" FOR THE NATION: The south front of Dorneywood House, in Buckinghamshire, which has been given for the use in the future of a Minister of the Crown

DORNEYWOOD and BOARSTALL TOWER for the National Trust

SIR COURTAULD THOMSON at his desk at Dorneywood

A gift to the nation, similar to that of Chequers made in 1917 by Lord Lee of Fareham, has just been announced. Through the National Trust, Sir Courtauld Thomson has given Dorneywood, in Buckinghamshire (adjoining Burnham Beeches), as an official residence for one of the Secretaries of State, or another Minister of similar rank. The Prime Minister, on behalf of the Government, has accepted the gift, and on the death of Sir Courtauld and his sister, Miss Winifred Thomson, Dorneywood will be at the absolute disposal of the Prime Minister of the day. One of the objects of the gift is to provide an additional official country residence where Ministers of the Crown will be able to entertain, without expense to the nation, overseas and other visitors, or to hold semi-official conferences

BOARSTALL TOWER, NEAR BRILL, IN BUCKINGHAMSHIRE, just presented to the National Trust: It dates from the fourteenth century and is the gatehouse of an ancient fortified house demolished in the eighteenth century

The gift to the Nation of Boarstall Tower was made by Mr. E. E. Cook, of Bath, who purchased it from Major Sir Henry Aubrey-Fletcher, D.S.O. It is situated near the village of Brill, which lies between Thame and Bicester. It is the gatehouse of an ancient fortified house demolished in the eighteenth century, and in all its long history this is the first time it has changed hands. For generations it had been the property of the Aubrey family. The tower dates from the fourteenth century, but it was extensively altered in the sixteenth and seventeenth centuries, when larger windows were inserted and a bay window was added to the second floor. None the less, its cross-loops for the bow and arrow and the grooves for a portcullis still preserve its medieval aspect. It consists of three storeys built of local stone, with crenellated turrets at the four corners, and it is almost completely surrounded by a wide moat

THE HALL AT DORNEYWOOD. Part of this house dates from the reign of Queen Anne: it is at present being used as a hostel for Air Force officers

A "MODEL BATTLE" AND ITS MAKER: Mr. Philip Doig with some of his large-scale models of warships and planes, which are electrically controlled from a keyboard

On right—Ex-Provost-Sergeant Philip Doig, builder of ship models, has just completed an amazing piece of work which he is shortly to take on tour to raise money for the Merchant Navy Fund. It consists of a large-scale model of a Convoy, with warship and aircraft escort. The whole is operated by electricity from a keyboard which fires the guns, explodes depth-charges and sinks ships. The Convoy is attacked from air and sea, and, after a fierce and realistic battle, the Convoy is finally saved. All the models taking part have been made by Mr. Doig single-handed—literally single-handed, for he can only use one hand effectively!

AWAY FROM THESE WARS . . . .

Memories and Thoughts of the Years Between

—A Fortnightly Causerie **By J. G.**

THE Story of a Clock.—It was made by the famous firm of Lepaute, of Paris, some time in the early eighteenth century, as lovely and graceful and efficient a piece of work as ever craftsmen of any age turned out.

It stands about 8 ft. high, of the "grandfather" variety, with a great steel and gilded face, the most delicate waist, the most graceful bulge and the most noble pediment in creation. Its colour *motifs* are bronze and old gold, in the lovely bas-relief effects of mosaic and veneers, adorned with flowers and violas in the manner of that genre of French furniture of the period. Its action, to be seen through a glass panel in its belly, is simplicity itself, and it has kept good time without attention for 200 years.

For nearly 100 of these years it has set the time for one family. It was acquired by Sir David Dundas (1799–1877), sometime Solicitor-General under Lord John Russell, a bachelor and notable collector and trustee of the British Museum. He gave it to the grandfather of this family I have in mind.

A legend became attached to it that it had once belonged to Marie Antoinette, and, indeed, it might well have graced Versailles or Petit Trianon. When it descended to the second generation, it was the Edwardian Age, when "possessions" were never more *commercially* appreciated. Amateur and professional collectors and experts used to rave over it and always estimate its value in the market. Before the Edwardian Age ended, a "firm" belief had grown up in the family that nothing less than £10,000 would justify parting with it. The family which owned it was not rich, but had a number of pretty things in furniture, china and silver and gold plate, but the clock was the phœnix of the collection, and upon it and other treasures the family wasted a great deal of vanity and pride. The head of the family of the second generation remained in possession of the phœnix and other trinkets through the first world war and into the second. It was found that in an elaborate testamentary allocation of his possessions among his children, he had entirely forgotten by an oversight to dispose of the phœnix, which fell into the residue! The economic stress and changes of the years between had already sadly affected the values of furniture and pictures of large size. The austerity of a second world war at first began to create something like a slump in artistic possessions. The phœnix was valued for probate, and, though any fantastic value had long since been discounted, it came as a surprise (not entirely pleasant) to learn that a token value of £75 had been put on the clock!

The London house was sold and dismantled and the furniture dispersed among the family, or sold.

It happened that the clock of Marie Antoinette in due course was carted down to a small country house in a blitzed county and arrived in the middle of an aerial tow-row overhead. And I suppose no delivery of valuable goods ever came so unwelcome, so despised, so malapropos. It was just troublesome junk!

In those few months of the blitz on England in the Battle of Britain, the standards and fashions, the values and traditions, of an Age of Privilege and Show, long an anachronism, had undergone a radical transformation.

Possessions had suddenly become a nuisance, a liability, an embarrassment, dross, and, more, *a curse*. The damn thing wasn't worth the cost of transport, there was nowhere to put it, and anyway, it would be busted to-morrow or next week.

Possessions and showmanship had gone out to 100–1, no takers, and the clock in sections lay with its guts, forgotten on a bare floor!

An Allegory.—And these things are an allegory. "We brought nothing into this world and it is certain we shall carry nothing out." From the days of Elizabeth to the days of George V (and beyond), we heard these words spoken at funerals, and we forgot them before the body was covered with earth. We returned to our homes and to the glorification of worldly possessions until a day came when the sword of Death was visibly suspended over our heads, hung by a hair, and then at last . . . we saw possessions for the dross they are, and in our reaction (as always) we swung too far, to a loathing of all possessions, beautiful or merely valuable, and to a too-exaggerated shame for the time and energy and jealousy and pride we had wasted upon mere ownership, based on commercial rather than on artistic values. The scales fell from our eyes, and 400 years of vanity and snobbery vanished in a night. We brought nothing in, we shall take nothing out; how far happier and simpler is our life on earth when we are burdened with no interlude of temporary possession, jealously guarded. Which leads me on to the catalogue of needless, senseless luxuries and sorry showmanship, still clearly remembered from the lifetime of middle-aged men.

Extravagance and Showmanship.—I remember a time when in the London Season no "respectable" house in Berkeley Square or Belgravia dared open its door for the reception of a caller, or three pasteboards, with less than a butler and two footmen to do the job. I, who have learned the joy of dining in the kitchen off a vegetable stew with my back to the "Aga," recall bitterly those routine dinners of nine courses, which, first to last, occupied two hours of hectic labour for the diners and quite two hours of incessant labour for the dining-room and kitchen staffs.

I remember the sideboard of a country house dining-room at breakfast-time during cricket weeks—a row of silver dishes giving seven choices of hot foods. I remember how Lady X. travelled to her week-end visits, with hanging-cupboard trunks which two men could hardly lift and with a *hairdresser* as well as a maid. I remember the preparations which humbler "showmen" deemed necessary before entertaining two friends at luncheon, or four at dinner.

In a word, I remember the labour and elaboration and insensate waste of showmanship. It had been at its apex since 1830, and it seemed to me we needed a world war of bloody ferocity (and deserved it) to jolt us out of such extravagances.

We had that world war (1914–18), and we were *a little* jolted, but not unseated. Many of those extravagances came back, many new instances of waste and showmanship came in. Think only of the waste of newsprint in redundant editions, of redundant circulars, of fine, long, cream-laid envelopes thrown away once-used and wholly adequate for re-use. Think of the extravagances of the Lido-loungers and of popular interest in their monstrous fritterings of time and money.

For me, you see, the trivial pointers come readiest to memory. But for the economists the catalogue of our folly is on the grand scale. Millions of acres of idle land, millions of idle workers, millions of pounds annually expended on unnecessary, luxury imports, millions of man-hours on useless super-luxury manufactures, scores of vital social reforms constantly deferred to the demands of extravagant tastes, and half the inventions of science turned to base, selfish or dangerous uses.

Now we have a second *jolt*. Will it unseat us from the high horse of showmanship and waste and elaboration? Shall we leap back to the glorification of possessions, to pride in showmanship, to multiplication of the labours and cares and jealousies of human life?

I dare say. Memory is very short and the Devil has no wish to wear a monk's habit longer than prudence prescribes. I dare say. But perhaps not in my lifetime.

It needs plenty of money to make life really intolerable.

The Shaftesbury Homes and "Arethusa" Training Ship

The Shaftesbury Homes and *Arethusa* Training Ship recently received news that one of their old Twickenham boys who left in 1935 is now a sergeant attached to the Canadian Air Force as Flight Lieut. Engineer and air gunner. He has taken part in 32 raids over Genoa, etc., and was mentioned in despatches in 1941. Please support this old Society. Address: 164, Shaftesbury Avenue London, W.C.2.

THE SAILOR WHO BECAME AN AFRICAN "SQUIRE"

The Story of the Pictures on the facing page

THIS is the story of the sailor who became "Squire" of an African village. Not only the "Squire," but also Chairman of the Parish Church Council, Chief Air-Raid Warden and the only white man ever to be elected to the village Leopard Hunt Club.

The sailor is Petty Officer William Palethorpe, and the African village is Leicester, which clings to the mountain-side high above the harbour of Freetown, Sierra Leone. Petty Officer Palethorpe, who is 34 and whose home is at Longton, North Staffs., has been in the Navy seventeen years.

This is how he became a village "Squire." About eighteen months ago Palethorpe was put in charge of the Royal Naval Rest House at Freetown, where officers and men recuperate after illness. Palethorpe had not been at Freetown long before he heard stories of the general hardship of life in the near-by native village of Leicester. He decided to investigate.

The native language is Mende, and the first thing Palethorpe did was to learn their words of greeting. The natives were delighted when he first greeted them in their own language, and he soon found that they were really very friendly people and had been misunderstood in the past because of their shyness. From that moment there was a complete trust and understanding between Palethorpe and the villagers. They brought him gifts from their gardens, and soon he was trading with them, buying fruit and vegetables for the Naval Rest House. He obtained seeds for them from England and America, and showed them how good European vegetables are and how easy they are to grow.

Because of the colour of his hair, Palethorpe became "Mister Ginger" to all the villagers, and they came to him for all kinds of advice. A religious man himself, Palethorpe naturally took an interest in the village church. He often reads the lessons, and has encouraged sailors from the Naval Rest House to join the native congregation in worship. The naval padre from the barracks at Freetown preaches at many of the services and takes the naval choir with him, and now there are usually as many white people as natives present. After eighteen months Palethorpe finds himself completely at home in this native community, and every home in the village is open to him. On one occasion a woman whose son had been conscripted into the Army came weeping to "Mister Ginger" to ask if her boy could not be transferred to the Navy. "Mister Ginger" fixed it for her.

A village boy was caught stealing from a banana plantation. The farmer took the youngster to "Mister Ginger." That boy steals no more. Schoolmasters from neighbouring villages take their children over to Leicester for a talk from Palethorpe, and the women's organisations always ask him to their meetings to hear stories of how Englishwomen live in wartime.

The villagers have no idea of the horror and destruction of modern warfare, so he spends a few minutes each day reading newspapers to them and showing them pictures of bomb damage in England. The village now has its own A.R.P. centre, and he has trained all of them, including the children, how to fight fires and incendiary bombs. "We people of Leicester village," he says to them—he always speaks of himself as one of them—"have been spared from bombing and other horrors of war, but that does not mean that we should not be prepared for it."

Palethorpe will tell you to-day that, apart from the separation from his wife, who is a leading Wren at Devonport, the past eighteen months as the village "Squire" have been the happiest of his life. This British sailor has made hundreds of new friends for Britain. A grand job of work, and just part of the Navy's service.

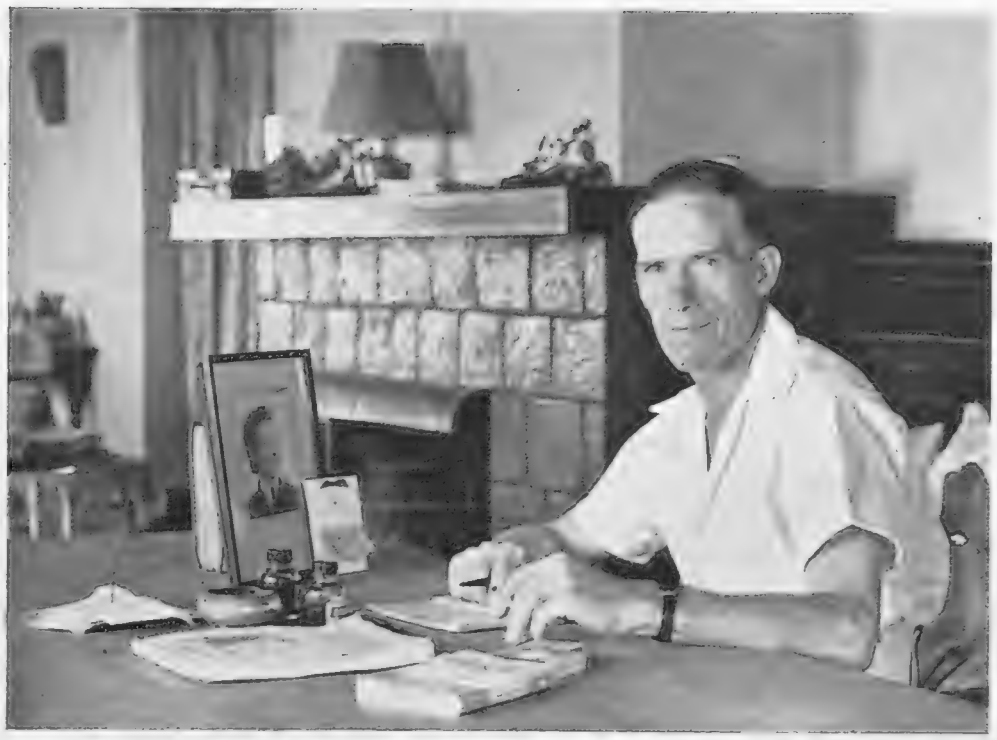
It is Sunday morning, and Palethorpe reads the lesson in Leicester village church. The choir is all-native, but many of the congregation are sailors staying at the mountain Rest House which Petty Officer Palethorpe runs. The padre from the Royal Naval Barracks in Freetown has come up for the service and is sitting within the altar rails

The fact that goods made of raw materials in short supply owing to war conditions are advertised in this publication should not be taken as an indication that they are necessarily available for export

The SAILOR who BECAME a SQUIRE

(See full story on facing page)

Petty Officer Palethorpe makes a point of seeing that the people know what is going on in the rest of the world, and he always tries to explain the news in simple terms



At his desk in the Naval Rest Home which he runs, sits Petty Officer William Palethorpe, to whom the whole of Leicester Village looks as their "Squire." Beside him is a photograph of his wife, a Leading Wren at Devonport

When the class has finished its arithmetic lesson, Petty Officer Palethorpe is going to tell them how brave English children have been during air raids. He gets requests to speak at all sorts of gatherings

Palethorpe and the Vicar choose the lesson before the service. The Rev. Elliott Spain is a Bachelor of Arts and was formerly principal tutor at Sierra Leone's Fourah Bay College

Outside the Post Office-cum-Police Station of Leicester's adjoining village of Gloucester, Petty Officer Palethorpe asks the way. Gloucester, like Leicester, is in the parish of St. Andrews, of which Palethorpe is Chairman of the Church Council

In his role as Chief Air Raid Warden, Palethorpe looks down on the village that has adopted him as its "Squire." He is wearing mosquito boots as a precaution against malaria, and has found his heavy walking-stick useful protection against snakes. The village is surrounded by palm-trees and lush tropical bush. His Rest House for the Navy stands high on the mountain-side above the village. Palethorpe has been in the Navy for seventeen years, and has served in the "Barham" and "Malaya"

Fred was a carpenter who used to grow a few vegetables. Petty Officer Palethorpe showed him how to grow in larger quantities and how to market them. Now Fred supplies Freetown's ship chandlers with vegetables in bulk, and earns ten times as much in a week as he did in a month

The World of Books—By Vernon Fane

STORY SETTINGS FROM MANY LANDS

Mrs. Compton Mackenzie's Volume of Reminiscences ; Stephen Gilbert's Enchanting Fantasy ; Murder in Occupied France ; De Soto's Expedition to Florida ; Rural and Industrial Conflict in West Virginia

MRS. FAITH COMPTON MACKENZIE has written a further charming volume of reminiscences, with the same erratic feminine disregard for chronology and the same happy sureness of touch. **ALWAYS AFTERNOON** (Collins. 12s. 6d.) is as readable as it is personal. The backgrounds against which her life has been lived are as diverse as Capri, Somerset, Jethou, the Hebrides and Hampstead. And since she pays scant regard to time and order, she has been able to include in this third part of her memoirs, a touching little study of her childhood home in the Isle of Thanet.

Mrs. Mackenzie has some delightful stories to tell, most of which are concerned with well-known men of letters, but perhaps the best are about her own not undistinguished husband.

In writing of the remote Island of Barra in 1940, she is reminded, typically, of a journey from Buenos Aires to Rio made seven years before. "A kind, serious lady made friends with us, and one night when M. went to bed with sciatica, she whispered to me that she would give him absent treatment. I thought then that she was a Christian Scientist, but now know that she must have belonged to another denomination, for Mrs. Eddy ruled that "promiscuous mental treatment, without the consent or knowledge of the individual treated, is an error of much magnitude." . . . He woke next morning perfectly well, and all he said when I told him that he had had absent treatment was : "What damned cheek ! "

The chapter on the Salzburg Festival gives some indication of Mrs. Mackenzie's quality. She is equally at her ease in discovering the dull passages in the "Magic Flute," or the staginess of the White Horse Inn, which was "full of lively young Germans of both sexes who were perpetually flinging themselves into the water with loud shouts." Elsewhere, when describing a journey into the Salzkammergut mountains, she observes : "Sometimes when I am confronted by a group of snow-covered mountains I have a feeling that I should like to visit Holland This was one of those occasions."

Anything, as writers have led us to believe, may happen on the coast of Southern Ireland, so that Mr. Stephen Gilbert's **THE LANDSLIDE** (Fabers. 7s. 6d.) should not disconcert us, however full of dragons, sea-monsters and large, magical dachshunds. This is in the most exact sense an enchanting little book. In a summer of intense heat, a landslide uncovers nests of primæval eggs and larvæ, which hatch in the sunshine to disclose creatures of improbably rapid growth and huge size. They are very friendly creatures, as a little boy and an old man from a neighbouring village discover to their delight. Day after day they go back to the shore to play with their prehistoric friends, and since they have no common language, it is fortunate that they are able to dispense with speech, but can read each other's thoughts.

Naturally, the villagers take a gloomy view of these happenings, and the story develops into a conflict between the forces of the past, simple and uncomplicated, although possibly a little oversized, and the forces of the present as represented by the local people and the boy's parents.

This may not be popular fare, but it has considerable freshness, and has been written by one who has not forgotten the magical boundlessness of a child's fancy.

REPRISAL (Collins. 8s. 6d.) is a story of Occupied France with the most authentic air of suspense and tension that I have yet read in such a tale. Suspense is a quality which Miss Ethel Vance understands in its literary connotation as well as any living author. I have not yet forgotten the extraordinarily heightened atmosphere of her *Escape*, and the present book, if not a companion piece, is at least a worthy successor.

In the Brittany village of Rusquec, a German sergeant in the occupation forces is murdered, and twenty hostages are destined to be shot if the murderer is not found within three days. The family of Andre Galle, formerly one of the Government ministers, is implicated to a dangerous degree. The whole story, with its prelude of fashionable social and political life, and its present of ominous undertones, is seen through the eyes of Françoise —Galle's twenty - five - year - old daughter. Simon Astley, the young American painter, who loves her, has not been seen since the fall of France, and though he reappears dramatically at the scene of the murder, he is forced to escape to England before Françoise can have a glimpse of him.

There is no doubt at all of this author's powers : she writes with tense vigour and, in this instance, a knowledge of the present conditions in France that is, as far as one can judge, quite remarkable. I recommend this book, however, not so much for those who wish to be politically informed, as for those who appreciate a first-rate story.

To the young and mechanically-minded, the name of de Soto may recall a high-powered American motor-car. To others, it may mean a Spanish explorer whose expedition to Florida may not greatly have benefited his country's coffers, but remains one of the great stories of the search for treasure, and of the fanatic will for gold and power which draws those searches on.

AT THE MOON'S INN (Eyre and Spottiswoode. 9s.) is written with colour, and a lively appreciation of sixteenth-century enterprise and that almost piratically adventurous spirit of the times, by Mr. Andrew Lytle, who has a firm yet lavish hand in his use of the dramatic, and is no mincer of words.

In the America of 1539, the enemies for an invader were not only the Indians, who were brave and desperate fighters, but the impossibility of organising supplies, the constant lack of food and water and the beckoning and elusive phantom of gold. De Soto is drawn as a man of implacable will, who could lead a reluctant army week by week further into danger and yet retain their loyalty. His own love-story, though sympathetically sketched in, has far less weight than even a fictional record of his deeds of prowess.

WIND BEFORE RAIN (Chapman and Hall. 9s.) is a novel of agricultural America, and of a district in West Virginia where industrial townships are encroaching on the country. The theme of conflict between industrialism and farm-life is one that is common, at least in peacetime, to most countries, but in this case its expression is purely American.

Mr. John Weaver has, to the eyes of an English reader, a rather exaggerated respect for the place of dialogue in narrative, and since his characters are richly rustic, their endless conversations almost demand the use of a glossary.

I have never felt particularly chauvinistic on the subject of novels, and I still think that one good rural drama deserves another, but I cannot see that even at a time when readers in this country are increasingly eager to find out all they can about contemporary America, this is a book that will help them to that knowledge.

THE QUEEN AND THE PRINCESSES AT A POETRY READING AT THE ÆOLIAN HALL. Accompanied by Princess Elizabeth (now in her eighteenth year) and Princess Margaret Rose, the Queen recently attended a reading by famous living poets of selections from their own works at the Æolian Hall. The reading was in aid of the French in Britain Fund. Seated with the Queen above is Mr. Osbert Sitwell

CAPTAIN SCOTT'S SON, who has just been attacking German armed trawlers : Lieut.-Commander Peter Markham Scott, M.B.E., R.N.V.R., is the artist son of the Arctic explorer, Captain Scott. He is now serving on a light coastal vessel which, on the night of April 15, went into action against three enemy armed trawlers. Two of the latter "bolted" and their leader was left in a bad condition. Here is Lieut.-Commander Scott on the bridge of his ship immediately after his arrival back in harbour after the action

Finding out about People : Once again *Who's Who* has made its welcome appearance, the 1943 edition of this annual biographical dictionary being the ninety-fifth issue.

Who's Who contains the essential facts, accurate and up-to-date, about the 40,000 men and women most in the public eye to-day. It is indispensable in the professions and business and invaluable in private and social life.

The details of each entry are checked each year and supplemented from innumerable sources. Wartime conditions have greatly increased the number of alterations and resulted in the emergence of new personalities. Birth and wealth alone are not sufficient to qualify for inclusion. Achievement and interest to the public are the main factors.

Side by side in its pages will be found dictators and cricketers, schoolmasters and actresses, Admirals and authors. Published by A. and C. Black, the price is 70s. net in buckram binding ; 75s. net in library binding with leather back.

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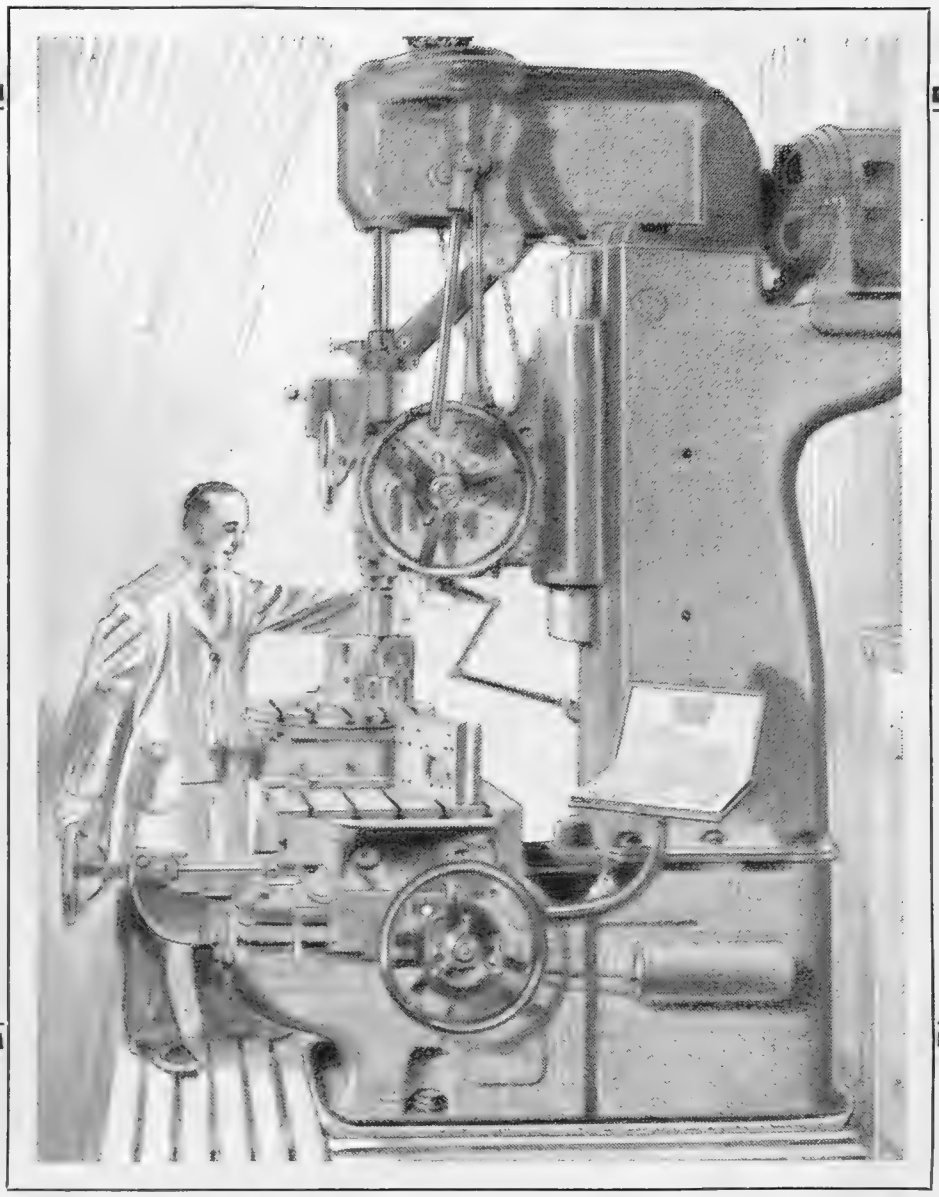

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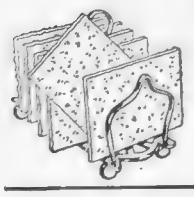

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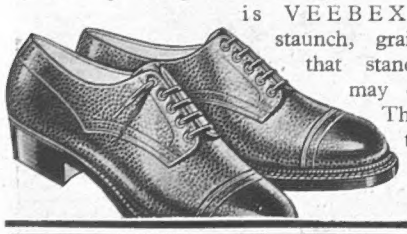

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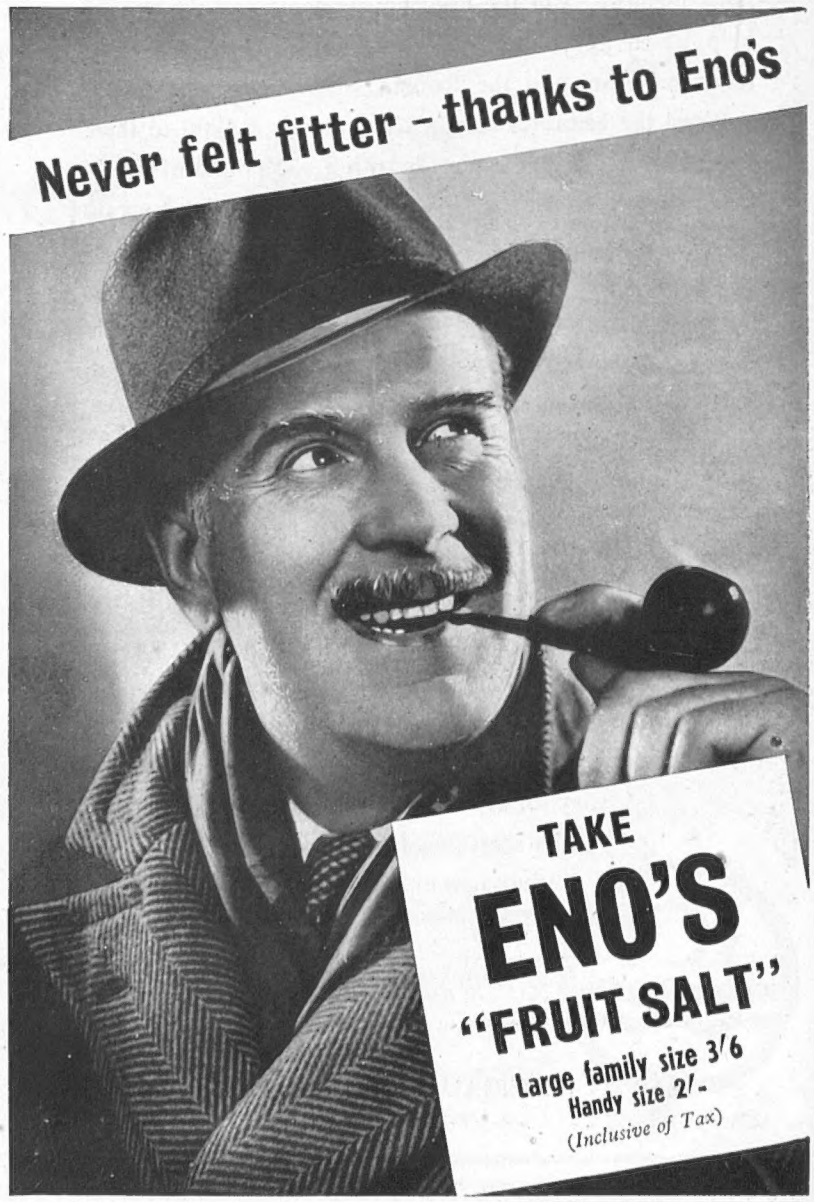

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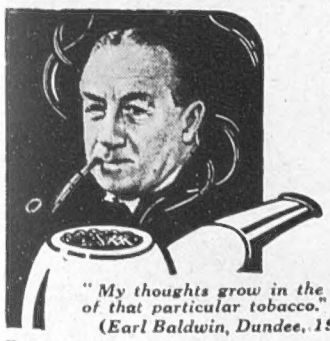

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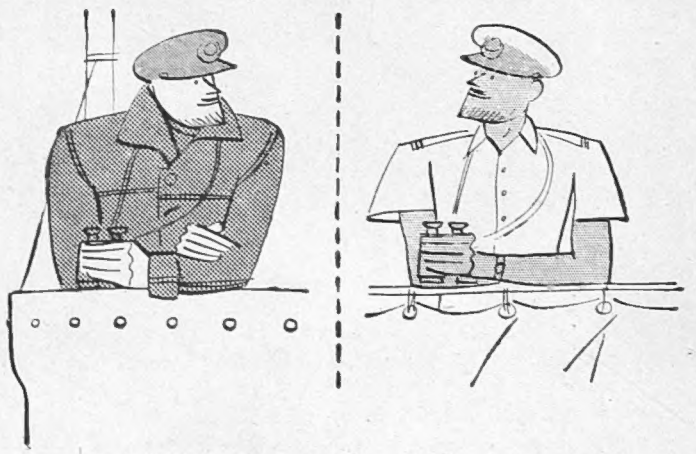

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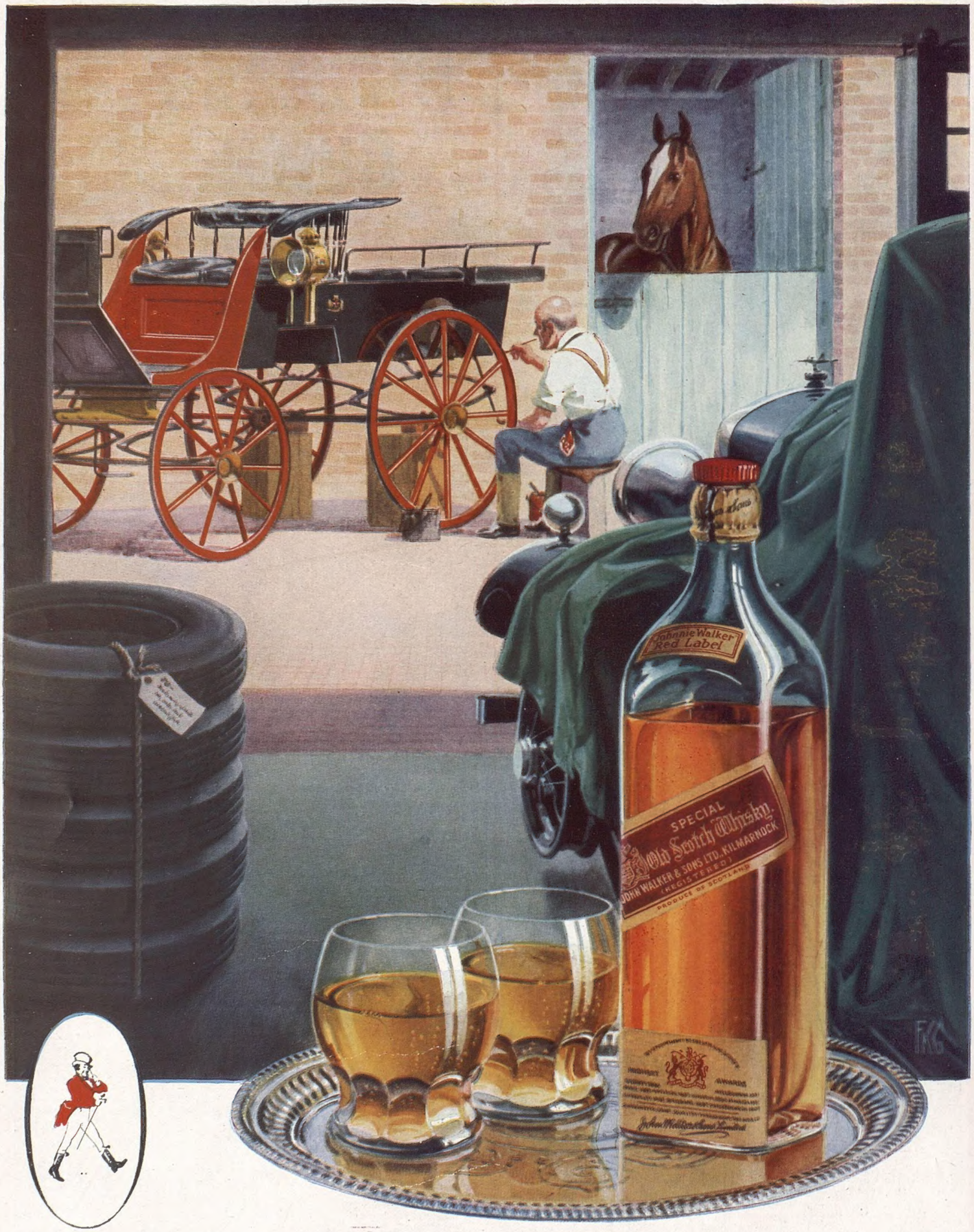

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